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ABSTRACT

This project was designed to serve a need recognized by individuals in the Massachusetts Department of Education. With increased interest and requests for assistance in program planning in health related areas, a need for curriculum guidelines in health education was identified. This report is divided into two parts. Part I contains the findings of a survey questionnaire designed to identify the status of health education in the public schools. Further examination and identification of the health needs of school age children and the population in general provided justification for curriculum development. Part II of the report consists of a curriculum guide which was designed for local planning of health education programs for the 70's. The guide is to serve as a basis for local school systems to plan their own individual programs. It is organized into four broad areas: physical health, mental and social health, consumer and environmental health, and safe living. It is structured to be used at the early childhood, middle grades, junior high and senior high levels of instruction. (Author/BW)

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Final Report

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HEALTH EDUCATION - ACTION FOR THE 70'S

December, 1971

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

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ABSTRACT

This project was designed to serve a need recognized by individuals in the Massachusetts Department of Education. With increased interest and requests for assistance in program planning in health related areas in local communities, a need for curriculum guidelines in health education was identified.

A coordinator was selected, and a Health Education Curriculum Advisory Committee was appointed by the Board of Education. The sequential steps taken in completing the project are identified in Part I of the report.

In order to identify the status of health education in the public schools, a questionnaire was distributed to all superintendents. Part I of this report contains the findings of this survey. This report provides historical background information, and in addition, reveals not only the general trends in health education but the strengths and weaknesses in existing programs. It provides educators with an overview of the status quo of health education as well as with pertinent information from which to decide if changes are needed in local programs.

Examination and identification of some specific health needs of school age children and of the population in general provided justification for curriculum development in meeting a critical need, that of conserving our most valuable resource - our human resource.

With data to substantiate specific needs of children and improving the status of health education in the schools, the curriculum guide in Part II of the report has been designed for local planning of health education programs for the 70's. This guide contains suggested concepts and primary concerns, learning experiences and resources. The guide has been designed to serve as a basis for local school systems to plan their own individual programs and is organized into four broad areas; physical health, mental and social health, consumer and environmental health, and safe living. It is structured to be used at the early childhood, middle grades, junior high and senior high levels of instruction.

Final Report

Project No 9-A - 067

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HEALTH EDUCATION - ACTION
FOR THE 70'S

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December, 1971

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U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
National Center for Educational Research and Development

CONTENTS

PART I

I. Preface and Acknowledgment 3

II. Background for the Project 5

- A. Summary 5
- B. Introduction and Procedures 8
- C. Conclusions and Recommendations 14

III. The Survey Questionnaire 16

- A. Foreword 17
- B. Acknowledgments 18
- C. Introduction 19
- D. The Past 21
    1. Beginnings 1838-1850 21
    2. The Temperance Movement 1880-1890 21
    3. The Humanitarians and Health Education 22
    4. The Modern Health Education Movement 23
    5. The National School Health Education Study 24
    6. State Leadership Massachusetts 1970 25
    7. Our Legacy from the Past 26
- E. The Present 27
    1. Purpose of the Study 27
    2. Questions to be answered by the Study 27
    3. Procedures 28
    4. Descriptive Information on Survey Respondents 29
    5. Limitations of a Questionnaire Study 29
    6. Analysis and Interpretation of Data 30
    7. Summary of the Findings and Recommendations 44
- F. The Future 48
    1. The Challenge 48

IV. Appendices 49

- A. Responsibilities of the Curriculum Guide Steering Committee 50
- B. Policy Statement on School Health Education 51
- C. Responsibilities of the Project Coordinator 53
- D. The Health Education Curriculum Advisory Committee and Sub-Committee Members 54
- E. Functions of the Health Education Curriculum Advisory Committee 61
- F. Structure of the Health Education Curriculum Advisory Committee 62

PART II

The Health Education Curriculum Guide 63

I PREFACE AND ACKNOWLEDGMENT

PREFACE AND ACKNOWLEDGMENT

A project of this dimension requires the talents and involvement of a great many people and the cooperation and resources of a variety of organizations and agencies. One of the strengths of this project has been the involvement of individuals and organizations with one major goal in mind -- the optimum health of the school child.

This project was originally initiated from within the Department of Education to provide direction and leadership in one segment of education in the schools, which appeared to be receiving lip service rather than specific planning and execution in meeting the needs of school age children throughout the Commonwealth. The ultimate goal is that this project will serve as the catalyst for the development and/or improvement of the school health programs throughout the Commonwealth.

A number of people, in demanding professional positions, made valuable contributions towards the development and completion of this project. The members of the Health Education Curriculum Advisory Committee and the many individuals participating in the Sub-Committee work have given professional service to the Department of Education and the schools throughout the Commonwealth. Since individuals and organizations are too numerous to mention here, identification of these contributors has been made throughout this report.

Part I of this report identifies the sequential steps taken in the execution and completion of the project and reviews the procedures followed in the participation of the status study to evaluate the status of health education in the public schools of the Commonwealth, and in addition, the results of the study. This study was distributed to all superintendents of schools and chairmen of school committees throughout the Commonwealth.

Part II of this report contains the Health Education Curriculum Guide, the first portion of which was distributed to the schools, because of the interest and requests for guidelines from many school systems throughout the Commonwealth. This has necessitated the printing of the guide in two parts.

Special appreciation is extended to each individual in the Department of Education who contributed in any way towards the completion of the project and to the many others who have given long hours of their own time in making this project a reality.

H. Marie Garrity, Ed.D.
Project Coordinator
Massachusetts Department of Education
Boston, Massachusetts
December, 1971

PART I BACKGROUND FOR THE PROJECT

A SUMMARY

This study was designed to serve a need in the schools of Massachusetts. Health education is an area of the curriculum which needed to be strengthened in content and in implementation. The project was planned with the following objectives established:

1. to permit the Department of Education to serve as the catalyst for the development and/or the improvement of school health programs throughout the Commonwealth.
2. to evaluate the state of health education in the schools of the Commonwealth by way of a survey questionnaire.
3. to identify the health needs of the school population for sequential growth and development through various avenues, such as vital statistics and surveys of state agencies.
4. to involve a broad representative group in the planning such as:
    a. representation from state public health and mental health departments.
    b. individuals participating from professional agencies and voluntary agencies such as the Massachusetts School Physician's Association, the American Heart Association and numerous others.
    c. representation from the schools such as administrators, supervisors, classroom teachers, nurses.
    d. participation from other groups such as the parents and students.
5. to develop a sequential curriculum in health, 1-12, for the public schools of Massachusetts, keeping the following criteria in focus:
    a. to strive for proven components rather than idealistic unproven approaches.
    b. to select the synthesis of what is best.
    c. to be concerned with content rather than method considering primary areas of concentration.
    d. to consider an approach that encompasses knowledge, attitudes, values, and practices which contribute to the ultimate goals of a humanistic kind of education.
6. to eventually create an impact upon the professional consciousness of schools throughout the Commonwealth through:
    a. stimulating curricular development in all school districts
    b. sponsoring teacher workshop programs in health education
    c. encouraging communities to provide in-service programs at the local level.

In summation, an outstanding committee was created to give direction to the project.

The status of health education in the public schools was evaluated by way of a questionnaire. Health needs of the school population were identified to the degree possible through data obtained through the Department of Public Health and other agencies, and a sequential curriculum for the schools in Massachusetts was developed.

The efforts of the many individuals involved in this project will have been in vain unless the Department of Education assumes its leadership role and provides stimulating in-service programs in health education and gives support where assistance is needed.

B INTRODUCTION AND PROCEDURES

B INTRODUCTION AND PROCEDURES

In the middle of the 1960's the General Court of Massachusetts set forth a mandate to the Department of Education to develop curriculum guides in various subject areas. Health education was among the various areas for consideration and planning. A Curriculum Guide Steering Committee was appointed in the Department and this committee was given the responsibility for implementation of certain criteria for Curriculum Guide development. [1]

As priorities in various areas were being identified, instruction in health education was recommended as one of the major priorities. In November, 1968, the Board of Education approved a Policy Statement on School Health Education which was made available to all school administrators. [2]

A specialist in Health Education was selected to serve as project coordinator with specific tasks defined as related to the development of the Guide. [3] This coordinator made recommendations for membership on the Health Education Curriculum Advisory Committee to the Curriculum Steering Committee with final approval of the Board of Education in December 1968.

The Health Education Curriculum Advisory Committee[4] was composed of a representative group including school administrators, classroom teachers, a nurse, a physician, public health and mental health agencies, private school, college and university and school committee representation, and a parent. Consideration was given for geographical representation as well. [5] The functions of this Advisory Committee had been determined by the Curriculum Guide Steering Committee.[6]

In order to function more effectively and obtain an even broader representation for committee work, sub-committees at the early childhood, middle grades, junior high, senior high levels were organized. [7] Unlike other subject areas, there were few health education specialists to draw upon for such a task. The combined make-up of all committees represented 65 communities in contributing to this project.

Included in the project was an attempt to evaluate the status of health education in the schools of the Commonwealth through direct communication with all superintendents. This questionnaire had been developed by the New England Educational Assessment Project, a

1. See Appendix A
2. See Appendix B
3. See Appendix C
4. See Appendix D
5. See Appendix E
6. See Appendix E
7. See Appendix F

cooperative project of the State Education Departments in New England. The New England Educational Assessment Project made it possible to fund the printing and distribution of the questionnaire to all the superintendents of schools. For a study of the results of this questionnaire, see Part I of this report.

The Health Education Curriculum Advisory Committee studied and responded to the criteria for curriculum development established by the Department of Education Curriculum Steering Committee. It then considered a number of approaches in the development of the health education guide. A final format was approved by the Curriculum Steering Committee. This format contained headings to include concepts and primary concerns, sample learning experiences and resources. It was the desire on the part of the Committee to make the guide a practical tool, and the final format seemed to lend itself to this kind of usefulness.

It was determined that the broad and comprehensive subject of health education be organized into four broad areas, namely; Physical Health, Mental and Social Health, Consumer and Environmental Health and Safe Living. These four broad areas encompass the essential qualities of well-being which enable the child to live effectively in his environment.

Various fields of study were identified and isolated to simplify the use of the guide by individuals who are not knowledgeable about health education. These fields of study are listed below under the general broad areas.

Area I
Physical Health

Body Structure & Function
Cleanliness & Appearance
Dental Health
Diseases and Disorders
Fitness & Body Dynamics
Nutrition
Sensory Perception
Sleep, Rest, Relaxation

Area II
Mental and Social Health

Drugs
Emotional Development
Family Life

Area III
Consumer and Environmental Health

Community Health
Consumer Health
Ecology
Health Careers

Area IV
Safe Living

First Aid and Emergency Procedures
Safety

It is recommended that individuals using the guide should not present the above fields of study in isolation, but, the subject matter concerned with these fields of study be interrelated. For example, the field of consumer health could include emotional development, cleanliness and appearance, fitness, body dynamics and additional fields of study; and it will then be much more meaningful if taught with this interrelated approach. This method is consistent with the Policy Statement on School Health Education, which urges schools to avoid teaching specific health topics in isolation and refrain from using the fragmentation or the "bits and pieces" approach, recognized to be pedagogically unsound.

The development of the entire project was made possible because of the enthusiastic support given by the members of the various committees. The Advisory Committee met once a month during the school year. On occasions additional meetings were called as individuals felt the need to exchange ideas concerning new problems. Each sub-committee met monthly to exchange ideas. Individuals worked together in their own communities with the coordinator working closely with individual members.

Additional consultants became actively involved as committee members attempted to seek reaction to content in the guide or obtain information on resources located within Massachusetts.

In order to have a better understanding of some of the pertinent health related problems concerning school age children throughout the Commonwealth, a sub-committee examined the vital statistics available from the Department of Public Health and other departments concerned with health related information. The results of the examination of data provided considerable evidence for the need for education in health in the schools throughout the Commonwealth.

The following release of vital statistics incorporates the most recent information specifically 1967 and 1968.

It is important to keep in mind that except for births, marriages, dental caries and venereal diseases the figures are based on mortality statistics. Unfortunately, it is impossible to obtain comparable morbidity statistics since, with few exceptions, reporting is not required. In fact, even when reporting is mandated, it is generally incomplete, falling far short of actual incidence as in the case of figures for syphilis and gonorrhea. It is apparent, therefore, when dealing with mortality figures that these represent only the end result. For every fatal accident, there are hundreds of non-fatal ones; for every death from cancer, heart disease or cirrhosis there are dozens of cases. Mortality figures like the peak of the iceburg, indicate the existence of the problem but do not reveal its magnitude.

Lung Cancer - Heart Disease - Alcoholism

Although the consequences of smoking are cumulative and occur later in life, the initiation of the habit or the decision of whether or not to smoke is made early in life.

In 1967, 1,639 deaths from lung cancer occurred (30 per 100,000 population), a steady increase from the 1,239 deaths (24 per 100,000 population), recorded in 1960. In 1960, 15% (186) of the deaths occurred in females, while in 1967, 18% or 303 deaths were female, reflecting the increasing numbers of women who have been smoking heavily in recent decades.

The corresponding statistics for 1968 show 1737 deaths from lung cancer (33 per 100,000 population) and 313 deaths among females.

Arteriosclerotic and degenerative heart disease in 1967 caused 21,622 deaths or 37.6% of the total. It is significant that in the age group 30-39, it was the second leading cause of death (cancer was first), accounting for 14.1% of the total. In the age group 40-49, it was the leading cause of death, representing 27.7% of the total. Deaths from heart disease in these younger ages are considered to be largely preventable. Poor health habits such as smoking, overweight and lack of exercise are considered to be important risk factors.

In 1968, the figures are almost a duplicate of 1967 with 21,605 deaths recorded.

In 1967, there were 303 deaths due to cirrhosis of the liver, with mention of alcoholism, two male deaths to every female. It caused 7.7% of the total deaths and was the fifth leading cause of death in age group 30-39. It rose to third leading cause for those between 40-49, again resulting in 7.6% of the total. Alcoholism is another disease representing cumulative effects of habits established much earlier in life.

Fewer deaths from cirrhosis occurred in 1968 with 252 recorded but the ratio of male to female deaths rose to 2.6 to 1.

Although morbidity figures for alcoholism are not available through reports, certain data make accurate estimates possible. Massachusetts is the fourth highest state in the number of alcoholics per 100,000 population and Boston is the second highest city in the nation being exceeded only by San Francisco. In 1968, 62,891 arrests were made for common drunkenness. In 1969, 7,448 arrests were made for drunken driving. Fifty percent of all traffic fatalities are related to excess alcohol while blood tests of 25% of these have revealed levels of alcohol far in excess of so-called "social" drinking.

A Massachusetts study of drinking habits of junior and senior high school students (ages 11-19) from three different communities revealed that the average age for having a first drink was eleven. Two-thirds drank at home and one-half of these did not drink out of the home. Beer was the most frequent beverage. Of the group of 3,388 in the study, 24% were abstainers, 76% used alcohol for social purposes i.e. not for religious ceremonies. Of this group 66% drank moderately (no more than three times monthly) but 8.5% drank for "kicks" and 2.1% drank pathologically including experiencing blackouts and arrests for drunkenness.

Leading Causes of Death in Youth

In age group 5-9, the leading cause of death is motor vehicle accidents, accounting for 25.9% of the total, and the third leading cause is all other accidents, which account for an additional 15.9%. Almost 42% of all deaths in this age group therefore, can be considered preventable and certainly education plays a key role in accident prevention.

In age group 10-14, non-motor vehicle accidents are the leading cause accounting for 22.9%, with motor vehicle accidents adding an additional 14.4% in third rank. Again 37.3% of all deaths in this age bracket are preventable.

In age group 15-19, motor vehicle accidents account for 50.4% of the total, non-motor vehicle accidents 10.4%, suicide and self inflicted injury 5.1% and homicide 3.6%. In other words, 69.5% of all deaths in this age group were preventable. All above figures are for 1967.

The comparable figures for 1968 reveal fewer deaths from motor vehicle accidents in the 5-9 age group but a substantial rise in other accidents so that, again, 41% of deaths are attributed to accidents and were, therefore, preventable.

For age group 10-14, in 1968, non-motor vehicle accidents again led with 21.9% with motor vehicle deaths close behind with 18%--a combined total of 39.9%.

Similar figures for the 15-19 age group in 1968 show improvement in motor vehicle accidents with 37.5% of the total. Non-motor vehicle accidents rose to 15.9%, suicide and self-inflicted injury was 6%. No information presently available for homicide. Nevertheless, 59.4% of all deaths in the group can be classed as preventable.

Dental Disease

Dental caries is an almost universal disease in Massachusetts. More than 90% of all children show some evidence of caries by school age. In fact, the average pre-school child has 3.6 decayed teeth but, in one survey, fewer than 7% of these showed evidence of treatment. An indication of the vast backlog of dental disease requiring restorative treatment can be found in payments made under Medicaid. The Massachusetts Department of Public Welfare in 1970 paid more than

7 1/2 million dollars for dental care for the medically indigent in just sixteen communities in the greater Boston area. Of this sum, approximately 75% was for children.

Marriage

In 1967, 18 brides were under 15 years of age and 10,662 were between 15-19 years. Although no groom was less than 15, 4,019 were between 15-19 and 20,542 between 20-24. A similar number of brides, 20,312, also were in this age group.

In 1968, 20 brides were under fifteen and 11,209 between 15-19 years. 4,275 grooms were between 15-19 and 22,902 between 20-24. Brides in the 20-24 age group numbered 22,797.

In 1967, there were 56 infants born to mothers under 15 years of age; 9,423 births were to mothers 15-19 years of age and 33,812 births were to mothers age 20-24 years. Data for 1968 reveal 71 births to mothers under fifteen, 9,414 births to mothers 15-19 years of age and 32,536 births to mothers 20-24 years of age.

Illegitimate Births

In 1967, 2,028 out-of-wedlock births were to teenage mothers out of a total of 4,936 such births, approximately 41%. This figure of 4,936 represents 4.9% of all births, and is an increase of 600 over 1966, in spite of a decline in total number of births.

No area of the State is omitted. In 1967, in the area around metropolitan Springfield, 8.4% of the births were out-of-wedlock; in the metropolitan Worcester area, 6.7% and in the city of Boston, 13.1%.

In 1968, 2,343 out-of-wedlock births to teenagers were recorded out of 5,578 such births, approximately 42%. This figure of 5,578 represents 6.1% of all births and is again an increase of 642 over 1967.

It can be seen, therefore, that the trend for the past two years is continuing the upward spiral noted throughout the decade.

Venereal Diseases

Increasing numbers of cases of syphilis and gonorrhea are being reported in the age groups below 20 years. As was pointed out earlier, reporting is very incomplete and only reflects part of the problem which is becoming so acute as to be termed "epidemic."

In 1968, 7.4% of all cases of primary and secondary syphilis reported in Massachusetts were in young people age 10-19 years. 20.5% of all cases of reported gonorrhea were in this same age grouping.

For the first six months of 1969, 20.3% of gonorrhea cases and 12.4%

of syphilis cases were in the 10-19 group. It can be seen that reported cases of syphilis can very easily show a 100% increase in 1969 if the rate for the first half of the year remains constant. In Massachusetts, young adults 15-24 years of age account for nearly 70% of all reported syphilis cases but it is estimated that only one in every five cases is reported.

Reported cases of gonorrhea tripled in the decade 1960-1970 but the true incidence of this disease actually is twelve to fifteen times greater than that.

Drug Abuse

Statistical evidence of the incidence of drug experimentation, utilization, abuse and dependency is difficult to obtain for reasons which are obvious. One study, however, will be briefly abstracted. A survey questionnaire was obtained from the junior and senior high schools of six Massachusetts communities. The findings were as follows:

1. In the seventh and eighth grades about 5-10% of the pupils had some drug experience.
2. Twelve percent of high school freshmen, 18-20% of sophomores and 45-50% of seniors report drug experience.
3. Although there is variation among the communities, an average of 25% of the students report some type of drug use with regularily.
4. Very few of these cases reach the courts.

C Conclusions and Recommendations

Some of the local school administrators feel that Chapter 71 Section 1 of the General Laws of Massachusetts and the Policy Statement on School Health Education of 1968 give definitive direction for the implementation of a school health program in their own school systems. The results of the survey questionnaire indicate that there are few school systems interpreting any kind of mandate for providing a comprehensive health education program in the schools. The accumulation of data, revealing some of the critical health needs, indicates that prevention rather than correction and rehabilitation should be stressed by school committees, school administrators and other school personnel if the quality of life for the 70's and 80's is to be improved.

The guidelines, completed as a result of this project, can only serve as a beginning for improving the quality of school health education in the Commonwealth. The beginning phase can stimulate local school systems to take a serious look at the needs of their own children, make an evaluation of their own health education program and begin to plan and think in terms of prevention and the conservation of the human resources in their own communities.

It is hoped that the results of this project will create an impact upon the professional consciousness of the school personnel throughout the nation. At the present time, there are many communities reassessing their own programs in all curricular areas and at all levels of the educational spectrum. No longer can the educators give lip service to the health needs of the school child. No longer can educators place health education at the level of assembly programs with emphasis on a specific health problem to the neglect and omission of other pertinent health needs.

To this point, a gradual step by step process can unfold a new health education program using the acceptable academic sequence for implementation. In-service workshops, pilot programs in school systems and on-going cooperation between the personnel from the respective divisions of the Departments of Education, and the expertise from health related fields, will strengthen the programs that should emerge with positive action for health education for the 70's.

PART I THE SURVEY QUESTIONNAIRE

A. FOREWORD

In the spring of 1969, a "Policy Statement on School Health Education" was sent to all superintendents identifying the responsibility of the schools for a comprehensive school health program. To gather information on the status of health education throughout the Commonwealth, a questionnaire was then mailed to each superintendent. The results of the survey are presented in this report. The reader will find evidence of needs yet to be met in the area of health education.

This report should provide school administrators throughout the Commonwealth with the substantive elements to assess health education and to realize a new program. The critical health problems in the Commonwealth and in the nation substantiate the need for prevention in approaching the solution of these problems. It is the responsibility of each school system to evaluate its own program and to provide a comprehensive health education program for every school child.

Neil V. Sullivan
Commissioner of Education

B. ACKNOWLEDGMENTS

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Grateful acknowledgment is extended to each administrator and school system assisting in this survey. Special appreciation is expressed to Mary E. Spencer, Ph.D., Consultant in Health Education, for her professional assistance in the analysis and interpretation of key data and development of the report, to Assistant Commissioner James F. Baker and staff of the Massachusetts Department of Education, Division of Research and Development in Woburn, and to Paul J. Andrews, Project Director, Drug Abuse. The members of the Health Education Curriculum Advisory Committee must also be thanked for their enthusiastic support and professional contribution to this project.

This survey would not have been completed without the kind assistance of the late Jesse O. Richardson, State Director of the New England Educational Assessment Project, in printing and mailing the questionnaire. The New England Educational Assessment project is a cooperative regional project of the six New England States funded under Title V, Section 505 of the Elementary and Secondary Education Act of 1965.

C. INTRODUCTION

School administrators, deeply involved until recently with the national curriculum reform movement embracing the academic disciplines, have suddenly found themselves in the midst of a crisis that is anything but academic and cannot be ignored. As the drug epidemic, like some lethal disease, spread from town to town leaving a trail of victims behind, anxious parents and concerned citizens pressured school officials to help the community solve this awesome problem. Because of the emergency nature of the situation, the schools responded initially with a crash drug education program designed to meet the students' immediate need for facts and reliable information. But as educators and community leaders sought to uncover causes for the wave of drug abuse and related social ills such as the spectacular rise in venereal disease among adolescents, other unmet needs of youth were apparent. Educators were confronted with the need for planning a comprehensive health education program to develop not only drug abuse education, but also other health units, such as smoking and health, family living, and alcohol education, too often presented as separate entities when they are really parts of a whole.

Thus the present crisis has generated new interest in health education, and history is repeating itself. For in times of major health crisès, health education has always emerged as a priority value, and the community has expected the schools to provide it. The reasons for this periodic crescendo of interest in health education as a part of the school curriculum are obvious:

1. Citizens' faith in the power of education to counteract social ills, whether racism, highway accidents, juvenile delinquency, malnutrition, or drug abuse has persisted.
2. The schools provide an arena in which the community can achieve, not only the education of youth, but also the education of the general public on problems of immediate concern to the community.

The evolution of health education in the public schools of Massachusetts documents this trend to move forward by crises rather than by objectives, a phenomenon presently exemplified by the burgeoning interest in drug abuse education in the schools of the Commonwealth.

In the first section, the various elements that have fashioned the course and destiny of the school health movement in Massachusetts, as it has developed through the years are discussed. With this background, the second section, a study of the present status of health education in the schools of the Commonwealth, can be brought into sharper focus.

D. THE PAST

Beginnings, 1838-1850

For nearly a century and a quarter health education has had a place in the curriculum of the Massachusetts public schools. It was conceived in a time of crisis when the first major educational reform movement overspread the schools of this Commonwealth. Horace Mann, first Secretary of the Massachusetts Board of Education, initiated the then radical doctrine of universal public education, providing for free education for the masses as contrasted with education for the elite in the academies of the period. Mann's relentless pursuit of his goal resulted in a major social reform eventually making education a reality for all. Children, even those from illiterate immigrant families, flocked into the common schools once they were established in their districts.

Convinced that health was the handmaiden of literacy, Mann further pressed for the addition of health instruction to the basic curriculum of the three R's and geography. During the entire twelve years of his state leadership, he fought his one-man crusade for health instruction, with the result that in 1850 Massachusetts passed the nation's first health law. This legislation mandated the teaching of health (physiology and hygiene) in all the schools of the Commonwealth. Health education has been a required subject of instruction ever since. Health education originated in Massachusetts to serve a community need, in this instance, the Americanization and socialization of children entering American life and democracy through the public school system of this Commonwealth.

The Temperance Movement 1880-1890

For the next three decades (1850-1880) health instruction through the teaching of physiology was routinely accepted as a part of the curriculum. Interest centered, however, on the newly developing gymnastic movement activated by the influx of immigrants from Sweden and Germany. The national systems of gymnastics these new Americans brought with them were soon adopted by schools throughout the country.

Then suddenly health education was catapulted into a position of national significance when it was singled out as the vehicle for a unique attempt at social reform. The Temperance Movement was activated on a national scale in 1880 by the Women's Christian Temperance Union to counteract the epidemic of alcoholism wreaking particular havoc among industrial workers overwhelmed by the horror of existence in city slums.

The members of the W.C.T.U. reasoned that the young must be spared the fate of their elders and that only the schools could achieve this goal. Acting as one of the most powerful pressure groups ever to affect American education, the crusaders for temperance took on, one by one, the various state legislatures to garner votes for alcohol abuse education for every child in the nation. The success of this first nationwide promotion of health education is underscored by the fact that between 1882-1890, thirty-eight states placed on their statute books laws requiring "the teaching of health with particular reference to the harmful effects of alcohol, stimulants, and narcotics." By 1903 the number of states with such laws had grown to forty-three. Massachusetts joined their ranks in 1885.

Social critics and educators over the years have debated the effects of this mass movement for alcohol abuse education. The social critics attributed the passage of the Volstead Act forty years later to the climate created by this form of education required throughout the nation. Educators have been more skeptical. Whatever its long-term social implications may have been, its short-term effect was the inclusion of alcohol education in the schools, usually in the required health education (physiology) course.

But even before alcohol as a health hazard became a matter of national concern, other health problems engaged the interest of Massachusetts legislators as noted by their passage of this law in 1873.

"In connection with physiology and hygiene instruction as to the effects of alcoholic drinks and of stimulants and narcotics on the human system and as to tuberculosis and its prevention shall be given to all pupils in all schools under public control."[1] This law had the force of mandating a drug education program as a part of the existing health education program in all schools. Special emphasis was also to be given to the topic of "Tuberculosis" then rampart among all classes, and generally referred to as "The Great White Plague."

The Humanitarians and Health Education

Alcoholism was not the only health problem where the schools were pressed into service by the community. In the wake of the Industrial Revolution poverty, overcrowding, squalor, disease, and want, as well as corrupt politics intensified to such a degree that only total reform could provide a way out. This reform took the form of the Humanitarian Movement of the late nineteenth century. The movement was spearheaded by socially oriented citizens, settlement house workers, community nurses, and others who fought poverty through concerted efforts to awaken a social conscience in the community. In pursuing their goal these progressive groups initiated a number of school health activities that were eventually incorporated into the general educational program.

[1] Chapter 71, Section 1, Massachusetts General Laws Relating to Education.

The use of medical inspectors in the schools and the addition of a nurse to the school health team at the turn of the century laid the groundwork for future health service programs. In the first decade of the twentieth century pressure groups outside the schools promoted penny milk lunches, open-air, ungraded, and nutrition classes, special classes for pupils with defects in sight or hearing, and hot school lunches adding new dimensions to school health programs in Massachusetts. School experiences rather than a text provided education in health, and the schools assumed full responsibility for these programs once their value had been demonstrated. Health activities were initiated by the community to meet classroom crises. Prolonged absences because of unsupervised communicable diseases, unrecognized or uncorrected physical defects, malnutrition, and handicaps to learning were all conditions the Humanitarians sought to remove, or at least ameliorate, in their alliance with the schools.

The Modern Health Education Movement

Health services in the schools grew apace, but health education, still mostly a book program, was criticized increasingly because of its ineffectiveness in changing behavior. National defense needs accentuated by World War I intensified this criticism as recruits for the various branches of the armed services were found wanting in stamina, good nutrition, and mental and emotional fitness. The schools were accused of "health informing" but not "health educating" their students. True to the American tradition of faith in the legal process, many laws aimed at physical fitness through physical education were passed to meet immediate needs. New types of functional health teaching appeared, largely promoted by voluntary health agencies like the Child Health Organization of America and the various branches of the then National Tuberculosis Association. With new health education programs, new instructional materials, and various conferences and institutes for retraining teachers, these health groups generated a veritable renaissance of interest in school health education that had many ramifications in the ensuing years.

The initiation of a special program to train public health education specialists at the Massachusetts Institute of Technology in the early 1920's, the development of a health education major for school personnel at Columbia University in the same decade, the establishment of a modern health education program in the Newton public schools with the assistant superintendent as the director of health education, and the Malden, Massachusetts Studies in Health Education under the auspices of the Massachusetts Institute of Technology were landmarks in the beginning of health education as we know it today. In the 1920's health education began to appear as an administrative entity as well as a subject in the curriculum. The first and oldest professional health education association, The New England Health Education Association, was founded in Boston in 1925. Directors of health education were subsequently appointed in Brockton, Pittsfield, Malden, Cambridge, and Beverly to name a few school systems.

The modern health education movement gave health education an identity of its own apart from physical education with which it had been administratively coupled almost from its inception. With this separation health education began to develop as a profession with its own standards and requirements for professional practitioners. Colleges began to offer courses in health education, and at least two local universities established departments of health education to prepare and to meet the in-service needs of teachers. Harvard Summer School in 1948 offered the first seminar in health education for Massachusetts secondary school teachers under the joint auspices of the Massachusetts Department of Education and the Massachusetts Department of Public Health. The latter funded the course and supplied the chief of its Bureau of Health Education to teach the course. In the 1940's the Massachusetts School Health Council was formed at the state level with representatives from the Departments of Education, Public Health, and Mental Health to study and advise on school health problems.

Before the mid-century mark several publications jointly produced by the State Departments of Public Health and Education appeared influencing practices in the public schools. Notable among these were The School Physician's Handbook and the first Guide for Health Education in Secondary Schools. The latter was followed by a similar publication for junior high schools in the Commonwealth. Trade publishers vied with one another in producing health text series incorporating the latest in pedagogical thinking. The dry as dust text was supplanted by activity books with health projects and problems relevant to the needs and interests of pupils. Industrial groups such as the New England Dairy and Food Council supplied well-graded, scientific, and colorful material in the field of nutrition. By the 1950's health education in Massachusetts had become a community affair.

The National School Health Education Study

While the School Health Education Study was national in scope, it has a bearing on health education in Massachusetts schools and for that reason, is singled out for mention here. Because of the magnitude of the study, the attendant publicity, and the fact that every superintendent in the nation was sent a report, possibly no other health education development has ever enjoyed such visibility throughout the country or such an opportunity to affect school health practice. Whether or not this result has been achieved cannot yet be determined, but one outcome is clearly evident. This study has had a catalytic effect on health education activities at the state level in various parts of the country. The national study has stimulated a number of states to assess their own achievements in this area, using the format and structure of the School Health

Education Study for their research, in toto or in modified form, as has been done in this study of health education in Massachusetts schools.

Carried out in the early 1960's, the School Health Education Study was undertaken by a group of leaders in health education who felt a research base was necessary for any future planning of health education curricula. It was the first nationwide study of the status of health education in American schools. It showed who taught health, what was taught, when it was taught, and with what results. Although the study results were used to structure a model for developing a modern health education curriculum using the concept theory as well as to produce classroom materials, its most important contribution was to stimulate state and regional groups to study and evaluate their own programs. This timely professional activity has been carried out by at least two New England States, Massachusetts and Rhode Island.

State Leadership in Massachusetts 1970

Educators' growing interest in health education as part of a balanced curriculum, the inclusion of health in the state curriculum structure set up in the Willis-Harrington Report, the continued activity of local community groups in critical areas of health education, and the present statewide health crises have all contributed to focusing attention once again on health education at the state level. As a result health education is one of the curriculum areas presently given priority consideration by the State Department of Education. A "Policy Statement on Health Education," voted by the State Board of Education in 1968, set forth clearly the Board's views on the place and importance of health in the school curriculum. Two technical advisory committees were appointed by the Commissioner of Education, one for drug abuse education (1967) and one for the general field of health education (1968). Both have been active in their respective areas: the former with the various publications and workshops of the Department in drug education; the latter with the production of a guide for health education for elementary and secondary schools.

To furnish more aggressive leadership in health education, the Department staff has been augmented. Their responsibilities include advising local school systems, assisting in setting up local and regional workshops for teachers conducting research and studies in this area, implementing a statewide program of assistance in drug abuse education, and planning and publishing a comprehensive curriculum guide, grades 1-12 inclusive (1971). Since local systems look to the State Department of Education for assistance in planning and implementing their instructional programs, the present momentum of activity augurs well for the future of health education in the schools of the Commonwealth.

Our Legacy from the Past

What then has been our legacy from the past? In Massachusetts for nearly a century and a quarter we have had a state curriculum requirement in the area of health education. But this requirement lacked precise definition. The development of health education and of school health programs in the cities and towns has been due largely to legal pressure, vested interests, powerful citizen groups, national defense needs, and various crises that called for alliance of school and community in a common cause. State requirements in this area have been lacking, and state certification of instructors non-existent. Each district has been free to meet its health education responsibilities as it sees fit. How well has this been done? What does the present self-study reveal? Has Massachusetts lived up to its reputation as a pioneer in the field of health education?

E. THE PRESENT

Purpose of the Study

With the unprecendented growth in the number of requests from local communities seeking assistance from the Department of Education on critical health education problems, an Advisory Committee in Health Education was appointed by the Commissioner of Education and approved by the Board of Education. This committee was charged with establishing a focus for school health and developing guidelines for a curriculum in health education. To carry out its responsibilities, the committee sensed the need for more accurate knowledge of present health education programs. Hence, this study was undertaken to provide an overall picture of the status of health education in the public schools of the Commonwealth.

Since this publication reports not only general trends in health education, but also strengths and weaknesses in existing programs, it serves the dual purpose of providing Massachusetts educators with an overview of the status quo of health education as well as with pertinent information from which to decide if changes in their own programs are needed.

Questions to be Answered by the Study

1. Is health education a major objective of education in Massachusetts schools? In theory only? Or in actual practice as evidenced by the provision of a scheduled time, materials appropriate to modern methods of teaching, credit for promotion and graduation, and adequately prepared teaching personnel?
2. How is health education organized? As a basic course with adequate scope and progressive sequence from grade to grade? Correlated with or integrated into existing courses? Taught as several discrete courses? Or unplanned, using only "teachable moments" as they arise in existing courses?
3. How is the content selected?
4. How do educators at the local levels perceive their problems, handicaps, and frustrations? What solutions do they suggest?

Procedures

The following steps were taken in implementing this survey:

H. Marie Garrity, Ed. D., Senior Supervisor in Health Education in the State Department of Education, was designated as the coordinator of the entire project.

The Department prepared a "Proposal" requesting a small grant of federal funds to undertake the venture. Under the Elementary and Secondary Education Act of 1965, Title V, Section 503, P.L. 89-10, the grant was approved and funded by the United States Office of Education.

Through the cooperative efforts of the Massachusetts Director of the New England Education Assessment Project, the questionnaire used in the national health study (SHES) was made available for use in this project.[1]

A letter from the Assistant Commissioner of Education requesting their cooperation was mailed with the questionnaire to all superintendents of schools. One follow-up letter was sent to districts failing to return the questionnaire by the requested date.

The statistical data were tabulated by the Department of Education, Research and Development Center and by graduate students from the Boston University School of Education, Department of Health Education.

A specialist in health education with broad local, state and national experience, Mary E. Spencer, Ph.D., served as a consultant for the project, analyzing and interpreting the data and writing the report.

1. E. M. Sliepcevich, School Health Education: A Summary Report, (Washington, D.C., School Health Education Study, 1201 Sixteenth Street, N.W. 1964).

Descriptive Information on Survey Respondents

In order to make the study as inclusive as possible, questionnaires were sent to all school systems in the Commonwealth, a total of 267. Returns were received from 165 districts, approximately 62 percent of those polled. For various reasons such as failure to complete the questionnaire, omission of identification of the system, or receipt of the questionnaire after the tabulation of the statistics had begun, eight returns had to be eliminated from the study. The summaries, therefore, represent the responses from 157 school districts, approximately 59 percent of those polled. The districts responding represent a total of 1263 elementary schools and 296 secondary schools. These schools represent a total of 432,253 pupils enrolled in the elementary and 316,842 in the secondary schools participating in the study. The questionnaires were signed in the majority of cases by the chief administrative officer of the system, the school superintendent. Administrative personnel in charge of curriculum in health education or health and physical education accounted for the remaining returns.

Limitations of a Questionnaire Study

In this study, as in all questionnaire studies, certain hazards and biases are built-in. The districts most likely to respond are those with worthwhile programs. Those districts not responding may have recognized the inadequacy of their present health education offerings and chosen not to report. If these assumptions are valid, the picture of health education in the schools reporting may be somewhat better than that for all the schools in the Commonwealth.

These observations, however, do not militate against the usefulness of the study for the purposes for which it was undertaken. Its returns do indicate what a majority of Massachusetts schools are now doing in health education. It, therefore, provides a base for charting future developments in health education in the schools of the Commonwealth. It also presents school administrators with an overall view of health education as it is presently evolving in the schools.

Analysis and Interpretation of Data

Reason for Offering Health Education

Why is health education included in the curriculum?

More than 90 percent of the respondents stated their first reason for offering health education was "to fulfill the educational objectives of the school program." Approximately 80 percent ranked "to comply with the state requirements" second, while 75 percent ranked "to comply with local requirements" third.

The health education theory of Massachusetts schools is superior in light of the results of the national study. Approximately 80 percent of those school districts cited as the rationale for their programs that health is an important objective of modern education. But theory does not always carry over into practice. Only a comprehensive study of existing programs can indicate whether or not the accepted philosophy has had a functional effect in upgrading local programs. Perhaps the replies to this questionnaire study may throw some light on the translations of theory into practice in local school systems.

Organization for Health Education

What are the organizational patterns for health education in the elementary schools?

Correlated health instruction was the most common organizational pattern reported for elementary schools, having been used in approximately three-fourths of the schools answering the questionnaire.

Integrating, as opposed to correlating, the planned health unit into other subjects in the curriculum began to appear in grades 5 and 6 where slightly more than one-quarter of the schools reporting used it as one method of organization. Health content integrated into other subjects continued to be reported in the junior and senior high schools, even when the separate health course had been set up.

Less than one-fourth of the districts responding indicated that health was scheduled as a separate subject with a definite time allotment in their elementary schools. Incidental health instruction, with reliance on the so-called "teachable moment", seemed to prevail as often as the scheduled health class.

In what elementary school subjects is the content of health education included?

Practically all subjects in the curriculum with the exception of geography and foreign languages were reported as vehicles for health instruction. At all levels science was most frequently mentioned, with physical education ranking a close second. Subjects with which health was most frequently correlated were as follows (arranged according to frequency of mention):

1. Primary Grades: science, physical education, language arts (especially reading), social studies.
2. Intermediate grades: science, physical education, social studies, language arts (especially listening), art.
3. 7th and 8th Grades: science, physical education, homemaking.

Using correlation as the sole method of health instruction was prevalent in the majority of schools reporting in this study. Is it so widely employed because of lack of time or failure to schedule a period for health education? Does it assure a comprehensive course in health education with progressive sequence from grade to grade? Or does this method cover only the areas of health that are easily correlated with science or social studies, neglecting others such as mental and emotional health?

Research evidence confirms the superiority of direct health instruction over indirect and incidental methods in effecting behavioral change in pupils. Correlation, integration, and utilization of "teachable moments" are all considered valuable adjunct methods to be considered in planning or coordinating the health curriculum. But they are not a substitute for the well-organized, comprehensive health course that insures scope and sequence of content with a minimum of repetition.

Allocating health instruction to the science course, the most common form of integration reported here and elsewhere, has been questioned by both science specialists and health educators because the educational objectives of health differ from those of science.[1] Health educators also question the amount of health subject matter that can be taught in existing elementary science courses where content is subordinate to the scientific methods of inquiry, experiment, and discovery.[2]

Linking health instruction with physical education in lieu of establishing a comprehensive health course also leaves much to be desired, if the health content is limited to first aid or some such area often assigned to the already overburdened physical education teachers.

[1] Sliepcevich, op. cit.

[2] Lawrence B. O'Reilly, "Let's Get the Health out of Science," The Journal of School Health, Vol. 34, No. 4, (April, 1964), p. 153.

To what extent is health education offered and required as a separate course on the secondary level?

Approximately 35 percent of the districts responding listed health as a separate course required of all students in their secondary schools. Less than 10 percent offered health education as an elective course for some students. One half reported they offered no health education course as such in their secondary schools. Nearly two-thirds of the secondary schools taught health through integration with other subjects.

In short a secondary school student in more than half these schools reporting would be hard put to further his knowledge and understanding of community health problems such as air and water pollution, inner-city health problems, housing, and other concerns of questioning youth, not to mention his own personal health, unless he elected a course where such topics were treated tangentially.

The quantity of scientific health information available for discussion is burgeoning, increasing the amount of accurate scientific facts and concepts needed today for self-direction and responsible health behavior. Social health problems, solved only by adolescents making wise behavioral choices, are also increasing. Thus, the need for a required health course of substance in every secondary school, seems abundantly evident. No administrator or educator, concerned with meeting the persistent demands of youth for relevant education, can afford to overlook the possibilities of such a course taught by a professionally trained health educator who can communicate with socially concerned adolescents. That educators are being alerted to this need and are taking steps to meet it, is a current trend.

In what other subjects at the secondary level are specifically planned health units included?

Biology, general science, home economics, and physical education were the subjects most frequently used for integrating health education units in both the junior and senior high schools. Not all schools reporting used all four subjects for integration purposes. The question similar to that posed previously at the elementary level must be asked. How much health education can any one student be assured of receiving when integration is the sole method of instruction employed?

In biology, a subject generally required in secondary schools, certain health course components would be presented as science but not necessarily as applied science or health education. Health education via general science and home economics would reach only limited segments of the student population, since they are not required for all students. Even in the unlikely event all three subjects were pursued by a student, large areas of essential health content could be omitted.

Physical education is often confused with health education by general educators and administrators who assume the course titles are interchangeable. Although physical education makes a valuable contribution to the individual's health, the two areas are not identical. The depth of information required to provide a comprehensive health education program argues against scheduling health education and physical education programs interchangeably.

Because of the joint administration of these programs throughout their development and in many districts even today, the tradition of health and physical education has been established and is difficult to change. But to the professionally trained health educator, health education and physical education are two separate entities.

Grouping Students for Health Education

How are boys and girls grouped for health instruction?

In 90 percent of the elementary schools reporting, boys and girls were grouped together. In the other 10 percent, the sexes were separated for certain segments of the course, most commonly for 5th and 6th grade units in family living.

Homogeneous grouping by sex for all health classes was more frequently reported in the secondary schools, occurring in slightly more than a third of the schools reporting. Heterogeneous grouping for all health classes was reported by 44 percent of the schools responding. Separation of the sexes for certain segments of the course occurred in 22 percent of the schools. If the sexes were separated for the entire course, lack of space or administrative reasons were cited as causes.

Instructional Time Provided

How much time is devoted to health education in the elementary and secondary schools?

A gradual increase in the time allotment for health education from kindergarten to grade 8 was evidenced in the reports from the elementary schools where the time span varied all the way from 5 minutes to 250 minutes weekly, with an average of 48 minutes at the kindergarten-grade 6 level. In grades 7 and 8, time allotments varied from 40 minutes to 180 minutes weekly; the average was 150 minutes weekly divided into three periods.

In the secondary schools, the amount of time scheduled for health increased gradually grade by grade until grade 12 where the average number of class periods weekly was 4.7. The reader overly enthusiastic about this excellent apportionment of time is reminded that health is offered as a separate course in only 35 percent of the secondary schools responding.

Attention is also called to the fact that with correlation and integration so prevalently used, it was impossible to estimate precisely the amount of time devoted to health education at any level, since only time set apart for a specific health course was reported.

Course Titles

By what title is the separate health course designated on the secondary level?

In the schools responding, health is taught under a wide variety of titles. Among those most commonly used are: health, health education, health and safety, hygiene, life science, physiology, physiology and health, public health, and psychology and health. All these titles should represent a comprehensive course based on a standard text, a guide, or an outline.

Extremely significant, however, is the number of schools reporting a required course in health education under such titles as: family living, sex and family living, smoking and health, first aid, drugs, medical self-help, home nursing, alcohol education, driver education, and nursing. If these titles are indicative of the content of these courses, many of the schools responding are offering aspects of health education instead of a comprehensive course, possibly due to the present health crises and to community pressure for school action in these areas. As noted in the position paper of the State Board of Education, these categories are best taught in the regular health education course rather than in discrete courses.

Still other districts report these titles for their secondary school health course: science, science and health, general science, biology, homemaking, home economics, and physical education. These titles reinforce the earlier finding that much of the health education carried on in the secondary schools occurs through health units in established high school courses.

In the secondary schools, grades 7 through 12, as many schools report physical education as the title of their health course as those who report health or health education. In many Massachusetts secondary schools, then, the transition from the former physical education to the modern health education program has not been made.

Credit Toward Graduation

Is credit toward graduation granted for health education, and how does it appear on the student's permanent record?

Of the 35 percent of Massachusetts high schools requiring a course in health education, approximately one half give credit for the course, while slightly fewer than half do not credit the course for graduation. Credit appears under the title health and physical education as well as under the title health.

Teachers of Health Education

Who teaches health in the elementary and secondary schools?

In approximately one half of the school systems responding, the classroom teacher was responsible for health instruction at the elementary level. Another third of the respondents indicated the classroom teacher, assisted by a coordinator, taught the course. Since at the time the survey was made only a small number of districts employed health coordinators, this coordinator was presumably coordinator or supervisor of elementary education.

At the secondary level, grades 7-12, in the school districts reporting, the teacher with a major in physical education was the health education instructor in more than 65 percent of these schools. About 8 percent of the respondents reported that their secondary school health courses were taught by teachers with a major in health education, while 7 percent indicated that the school nurse was the health education instructor.

When health was integrated into courses like biology or home economics, the instructor of that course was responsible for teaching the health units in the course. This pattern of integration appeared so frequently in the schools responding that apparently a wide variety of instructors with preparation in fields other than health were teaching health in the schools of the Commonwealth.

What other responsibilities have health instructors on the secondary level outside of teaching assignments?

Guidance and counseling, nursing services, and athletic duties were the most frequently mentioned extra teaching assignments at both the junior and senior high school levels. At both levels guidance ranked first, 32 percent engaging in this activity in the junior high schools and 41 percent in the senior high schools.

Is health education a requirement for certification of classroom teachers or a condition of employment in school districts with elementary grades?

The Commonwealth of Massachusetts does not require a course in health education for certification; and in no instance was the completion of such a course cited as a requirement for employment in the school districts included in this study.

What in-service educational opportunities are provided for teachers in health education?

Teachers' meetings were mentioned more frequently as the method used to give in-service training or to update teachers in health education. These were reported by 48 percent of the respondents. There was no mention of the frequency of such meetings. One a year? One a month? Occasionally? Sixteen percent of the schools responding listed health curriculum development by some teachers as their method of in-service growth for their teaching staff.

The responses to questions listed above, relating to teachers in the health education program, deserve interpretation and special comment, since the teacher is the key figure in the entire school health program. This study demonstrates that the classroom teacher with little or no help carries the burden of health education in the elementary schools studied. Since at present health education is not a required subject for elementary majors in the state colleges and since it is not required in the private liberal arts colleges, the teacher comes to the classroom ill prepared for specific health instruction.

As reported here the opportunities for in-service education in health on a district-wide basis are almost nonexistent, since one teachers' meeting yearly or even several, does not constitute quality in-service education. Valuable as the experience may be for professional growth, service on health curriculum committees is intermittent at best, available to only a few select teachers. In light of the wealth of resources available for the continuing education of teachers in Massachusetts, their in-service education in health, the teaching of which is mandatory in all schools, seems inadequate and well below par. Whether this is due to apathy, indifference, lack of motivation on the teachers' part, or the absence of aggressive leadership on the part of school administrators can only be surmised.

Massachusetts is particularly fortunate in the number of universities and state colleges offering health education workshops, extension courses, and seminars in health education on campus and in local regions. It is equally fortunate in the number of voluntary health agencies and industrial health groups that have funded such opportunities for teachers. But unless administrators take a more active interest in health education, giving it status and prestige in the curriculum, and unless teachers can gain promotional credit for self-improvement, they will ignore health education seminars and conferences in favor of others more highly valued by the educational hierarchy. Continuing teacher education in health should be aggressively promoted by school superintendents and not left to chance.

For a number of years health professionals as well as educators have talked about health as a requirement for teacher certification, but this requirement has not materialized. It is generally agreed by health education leaders that at least one comprehensive course in health education should be required for certification as an elementary teacher in Massachusetts. For teachers already in service, provision should be made by local school systems for required courses or workshops given in the community to prepare teachers for their responsibilities in this area.

Teacher selection for secondary school health instruction and specialized preparation for this undertaking also need upgrading. Temporary use of professionally trained physical educators to teach health at the secondary level may be convenient or necessary but, as an established practice, is less than desirable for several reasons. Specialization in physical education in college precludes specialization in health education, the sine qua non for responsible health teaching at the secondary level. The physical education teacher responsible for extra inter-mural and extra-mural activities does not have adequate time to attend to health education. Each is a full-time job, and many physical educators have neither interest nor competence in health education, despite their ability in their own specialty. They do not seek or desire the responsibility of teaching another discipline.

The problem of teachers or instructors in health education in Massachusetts schools, as revealed in the schools encompassed by this study, calls for one further comment. Since much of the health instruction was carried on by correlation with and integration into other subjects, many teachers of varying backgrounds and degrees of preparation are engaged in this program. If the program is to succeed in these circumstances, a high degree of coordination to insure adequate scope and sequence and to eliminate undue repetition is essential. Teachers prepared in other disciplines must become familiar with the philosophy and goals of health education as well as with the content of the health units incorporated into their specialties. This calls for adequate direction and overall supervision of the school health education program by a competent health coordinator, a specialist in this field. The lack of adequate supervision in this field in the schools studied was noted. This compounds the existing problems of inadequate pre-service teacher preparation and the lack of in-service education for teachers.

The overall picture of teacher education for health education in the Commonwealth deserves special study in depth to correct existing conditions. Such a study may indicate that the difficulty lies at the local level. Until school administrators give status to health education and demand trained teachers certified in this subject to fill their teaching positions, neither the teacher education institutions nor the teachers themselves will be sufficiently interested to change the status quo.

Teaching Facilities, Class Size, Textbooks

What are the teaching facilities in secondary schools for health instruction, and what is the average number of students assigned to a class?

Any available space seems to be the answer of the respondents as to where health is taught. In rank order the places mentioned were:

1. The auditorium
2. The gymnasium
3. A special health classroom
4. The locker room
5. Any available classroom
6. The school library

Does the auditorium, then, suggest a lecture course? Does the library suggest a supervised reading or study course? Does the gymnasium suggest a physical education class? Class size varied from 10 to 35 students, with 30 the most frequently mentioned figure.

What is the practice regarding the use and adoption of health textbooks on the elementary level?

Of the schools responding, 32 percent used texts in their elementary schools. Of these, 42 percent reported using a single series of texts, while 20 percent used two or more series. In 28 percent of the schools, appropriate texts for each grade were selected without reference to the series or publisher. This often resulted in using texts from several series.

Resources for Determining Course Content

What resources are used in elementary and secondary schools as a basis for determining course content?

At the elementary level, several determinants for course content were reported: the needs and interests of pupils, teachers' decisions, the local curriculum guide, and the adopted text. Each received approximately the same number of replies, 17 to 20 percent. A combination was used by the remaining 20 percent.

At the junior high school level, the text ranked first as the determinant of course content with the use of the local curriculum guide a close second.

Pre-testing to determine the student's previous learning and present knowledge most frequently preceded setting up the senior high school health course. Teacher-student planning ranked next, with instructors' decisions the third most frequently used basis.

At this point in the educational reform movement, community pressure and student involvement in improving health education are not evident. Health education could become a just cause for present-day students demanding relevant courses and wanting a part in the educational decision-making process.

Content of Health Education

What is taught in health education in the elementary grades?

In the primary grades the topics most frequently mentioned as part of the health curriculum were: accident prevention, cleanliness and grooming, dental health, rest and sleep, and community helpers.

In the intermediate grades the same topics again received major emphasis. To them were added: food and nutrition and exercise and relaxation.

Where grades 7 and 8 were part of the elementary school, one new area under the category "Most Frequently Mentioned", smoking, was introduced into grade 7. Again, most frequently taught in those grades were such topics as cleanliness and grooming, accident prevention, exercise and relaxation, and foods and nutrition. Topics most frequently mentioned for grade 8 in these schools were: boy-girl relationships, structure and functions of the body, and vision and hearing. Cleanliness and grooming were again found in the most frequently mentioned column.

Topics least frequently taught throughout the elementary grades were: sex education and family living, venereal diseases, foot care, alcohol education, non-communicable diseases, health careers, and international health activities.

A careful analysis of the topics taught in elementary schools leads to the conclusion that the updating of present health education programs has not kept pace with revisions in mathematics, science, and the social studies. The heavy emphasis on cleanliness and grooming from kindergarten through grade 8 could only lead to endless repetition and boredom. The grade by grade appearance of several other topics usually allocated to the primary grades such as dental cleanliness, rest, and sleep also seems unduly repetitive.

On the other hand, the introduction of salient topics such as smoking, drugs, alcohol education, and family living as late as grade 8 seems out of line with the needs and interests of young people, especially since these schools cite "studying the needs and interests of pupils' as a determinant of content. Their needs in the areas cited above are evident as early as grade 5 if not earlier in some instances.

What is taught in health education in the secondary school where health is taught as a separate subject?

At the junior high school level, topics most frequently mentioned were: alcohol, drugs, narcotics, smoking, exercise, rest and sleep, cleanliness and grooming, accident prevention, the structure and functions of the human body, nutrition, and vision and hearing.

Listed as topics least frequently taught in the junior high schools were: community health programs, consumer education, health careers, preparation for marriage, and international health activities.

The topics emphasized in the senior high school, judged by their frequency of mention, duplicate those listed for the junior high schools with two exceptions: boy-girl relationships and research developments in health and medicine.

Topics least frequently taught in the senior high schools were: community health programs, health careers, environmental health hazards, weight control, non-communicable diseases, international health activities, and preparation for marriage.

Most health experts would agree that the topics most frequently taught in the secondary schools were current problems of priority value in setting up any secondary school health course. Generally missing, however, was instruction in community health problems and services, in medical care, in consumer and urban health problems, and in the increasingly pervasive role of government in public health. Mental and emotional health was as infrequently listed a topic as the effect of pollutants, sanitation, food additives, and other ecological problems on health. These wastelands stand out conspicuously in the panorama of health education offerings for secondary school students.

Health education today is characterized by an unprecedented proliferation of new knowledge. The disease spectrum is constantly changing with the application of new research findings and with the implementation of new community health programs. The mass media bombard youth with daily accounts of urban health hazards and governmental attempts to counteract them. The achievements in medicine are spectacular. All these resources are available to help the instructor and his students develop a curriculum. All focus on problems relevant to the life interests of youth. When more meaningful subject matter in all school courses is sought, health education courses as reported here need careful study by local school systems with a view to instituting needed changes in both content and method. The need for enrichment of these courses is abundantly evident.

Problems and Recommendations from the Respondents

What problems related to health instruction in the elementary and secondary schools are of concern to the respondents in this study?

What recommendations are offered?

As they scrutinized their programs, respondents identified a number of problems on which they want action.

Elementary Schools

At the elementary level the recognition of health as an important subject in the curriculum, with time specifically set apart for it in the daily schedule, was mentioned most frequently as a primary concern for these educators. Practically all respondents noted this lack of time as their first problem.

The need for leadership and for continuing education in health as well as for college preparation in health was also stressed. Almost as many respondents requested the availability of a health education consultant, coordinator, or specialist for assistance in their health education activities and for on-the-job training as those who pinpointed the need for a scheduled health period in the daily or weekly schedule.

Suggestions for in-service education in health were too numerous to list, but most could be subsumed under these categories: regional health education courses for teachers, workshops in the local community, released time for teacher discussion groups, time for the preparation of instructional materials, and graduate courses available locally. State sponsored in-service courses, more health consultant service from the State Department, employment of local health consultants, and required health courses in pre-service teacher education were other needs cited.

The health education course as it now exists was criticized considerably by those answering the questionnaires. The course was categorized as repetitive and lacking in intellectual content with many basic areas omitted for one reason or another. Teachers were faulted for making poor selection of content because of lack of agreement about concepts to be taught and about placement of units and topics, two conditions over which they had no control. Good curriculum guides, up-to-date texts, and professional guidance in planning and implementing programs were suggested as possible remedies to these conditions.

The community was blamed for inadequate funding of programs, for apathy toward existing programs, and for occasional organized opposition to introducing new areas such as family life education into on-going health education programs.

Secondary Schools

The major problems recognized by secondary school respondents were remarkably similar to those enumerated by elementary school educators. In order of frequency of mention, they were: lack of status for health education with accompanying lack of time, space for classes and small discussion groups, and appropriate instructional materials; lack of teacher preparation in this specific area; lack of a definite course of study; and indifference of faculty and community to the need for a required comprehensive course in health education for all students at some point in secondary school. At this level much more emphasis was placed on the problem of organized opposition of community groups to critical areas of the course. This was cited as a real stumbling block to progress.

Problems identified at the secondary level that were not previously listed included the lack of academic credit for health education, the lack of a planned program, too much correlation of health with other subjects in lieu of establishing a separate health course, and the substitution of physical education for health education in courses labeled physical education and health. Lack of trained personnel to teach the health course was a universal problem in these schools.

Again, at the secondary level, there were suggestions for resolving existing problems. A curriculum guide in health education that would command the respect of faculty and community was the most frequent suggestion. This was followed by the suggestion that a required one-year course, meeting at least three times weekly, be established. The problem of lack-of-time elicited suggestions to lengthen the school day or eliminate unnecessary study periods. The need for more assistance from the State, both financial and professional, appeared again and again. Making more health education consultants available and publishing up-to-date teacher information were typical of the services the respondents believed the State should be rendering. Setting up local and regional health education workshops and holding annual health education conferences for teachers were other suggestions.

The school-community concept of a health education program was evident throughout the responses because suggestions were made for setting up school health councils, for employing community advisory committees, and for providing adult health education programs to parallel the school programs.

At both the elementary and secondary levels the suggestion for more agressive leadership on the part of school administrators was emphasized, indicating that faculty members below the top echelon may have been consulted before the study questionnaires were filled in. As aptly put by one respondent, undoubtedly a staffer at least one step below top brass in the educational hierarchy:

> Headmasters and masters charged with programming should be made cognizant of the importance of health in the total educational program. Program facilities, time allotment, and equipment should receive careful consideration. Teachers must never again tolerate over-sized health education classes, cutting down on scheduled mandatory time, or being forced to conduct classes in halls or auditoriums.

This respondent seems to be telling it as it is and speaking for the silent majority of health instructors in the secondary schools of the Commonwealth. The main criticism elicited by the open-ended question appended to the structured questionnaire seemed to be the lack of support and recognition for health education in the curriculum. Health education specialists have long been aware of the indifference of the community and of school administrators. Finally, however, educators at all levels appear to be sufficiently disturbed about the status quo to become activists seeking better health education while meeting the requests of students for a school curriculum more relevant to their needs and personal problems.

Summary of the Findings and Recommendations

What is the present status of health education in Massachusetts public schools as indicated by this study? What does it tell us about changes needed in present programs? What problems should be given top priority in future planning?

Status of Health Education

In theory Massachusetts schools accept health as a major objective of education, but in practice this is not implemented. Judged by time allotments, assigned facilities, credit given, and professional requirements for personnel engaged in health education, this area is lacking in status and administrative support. Educators cannot be convinced of its value and treat it so casually. If the needs of the learner and the needs of society are accepted as important criteria for selecting curriculum content, the fact that health is relevant in the student's overall educational plan cannot be disputed. If health education achieves the goals of assisting students in setting up effective value systems and responsible life styles and of encouraging mature decisions where there are options in behavioral patterns, its value is preeminent. From a purely utilitarian standpoint, health education is a basic area in the current school curriculum.

Organization of Health Education

The present organization of health courses revealed in this study leaves much to be desired. The common pattern at the elementary level was correlating health instruction with the so-called established subjects. At the secondary level the health units were commonly integrated with the major disciplines. No definite planning for this integration was evidenced.

At both levels in the school systems responding it appeared that health was not accepted as a subject in its own right, except in a small minority of cases. At the secondary level a good deal of fragmentation existed with separate courses reported for drug abuse education, smoking and health, alcohol education, and family life education. This may be a temporary situation created by the current health crisis that is being met with emergency measures.

Curriculum

The need for a more definite program in health at all levels is obvious from analyzing the course content offered now. In this Commonwealth, as noted previously, the teaching of health is mandated by school law. Yet at the time this study was made, no state curriculum guide in health education existed. Each local system was on its own in health education. While diversity and innovation are the life blood of educational progress, educators generally are not experts in this multidisciplinary area and could use broad outlines to guide their own creative efforts. To make programs effective, objectives should be stated precisely and general ways of attaining them should be indicated. Top priority should be given to the production of a state guide in health education.

Course Content and Teaching Procedures

An analysis of course content and procedures points to the need for drastic curriculum reform to bring both material and methods up to the standards being set for health education in the 70's. The present repetition in themes and topics from 1-12 may indicate that teaching material familiar because of long use has become sacrosanct. At best it has produced a curriculum lacking in challenge and intellectual fiber. As indicated previously, the multidisciplinary nature of the subject and the recent phenomenal growth of the health and behavioral sciences have opened up a wealth of health problems for students to identify, explore, and attempt to solve. For students disenchanted with the status quo, the area of health study offers a ready opportunity to work with school faculties in setting up courses relevant to their needs and concerns.

A concomitant change in methods is also indicated. Courses, especially those for urban areas, could be updated and made more meaningful for today's students by focussing on the community and stressing the social aspects of health education. This change would provide opportunities for student participation in community health activities as well as for participation of experts from the community in the school situation. Today's community and family centered health education programs take literally the educational concept of the "school without walls" in allowing students to pursue their own health interests and inquiries. Texts and reading references are still invaluable aids to health understandings, but the newer methods, which have proven their value in other areas, are recommended for possible contributions to motivating students' interest in health education.

Teacher Education for Health Education

The lack of pre-service health education for elementary teachers and the use of instructors trained in specialties other than health to teach health at the secondary level are significant findings that deserve immediate attention. While college preparation cannot guarantee effective teaching, basic training in the content of the area to be taught is the sine qua non of teacher preparation. The physical education teacher, the guidance counselor, the nurse, or the home economics teacher who is assigned classes in health education should also be trained as a health teacher or required to take in-service training to remedy professional deficiencies. All teachers should have access to in-service refresher courses. In brief this study indicates three present needs in the area of teacher education:

1. Required pre-service health education for certification as an elementary teacher in the schools of Massachusetts.
2. Required certification of instructors in health education in secondary schools.
3. The availability of continuing in-service education in health through workshops, conferences, seminars, or courses at the local or regional level.

Coordination of Health Education Programs

Because of inherent weaknesses in the present systems of educating teachers for assuming health education responsibilities, the need for supportive help and assistance at the local level is apparent. Health education supervision in the local school system would meet many of the immediate needs disclosed by this study, consultant service and assistance for teachers at their home base, formal and informal in-service education, coordination of the present more or less nebulous programs, and leadership in developing and updating curricula as needed.

A more extensive use of professionally trained and qualified health education coordinators or consultants is recommended to insure quality health education programs and teachers prepared to implement them.

Administrative Support of the Program

As indicated in this study and as cited by the educators themselves, health education presently needs more virile, aggressive support from administration, not the usual imprimatur that brings the program into existence but does not promote it. The attitude of the central office colors the curriculum of the local system. The visible approval and support of the top educational echelon will do more to establish quality health education programs locally than any other force. The busy school administrator with a hundred other demands on his time will probably delegate the direction of the health education program to others. But by providing competent direction, by according health education the status of a basic subject, and by making available funds, resources, and trained personnel, he can insure the success of the program and at the same time provide the status leadership required. Strong administrative support will insure the success of any health education program.

The Role of the State Department of Education

Perhaps no other single comment or recommendation from the respondents was as clear as their desire for backup assistance from the State Department of Education. Their suggestions for assistance ran the gamut from the funding of local innovative health projects, through the need for more health consultants to requests for more publications and documents to keep them informed of on-going health education programs, experiments, and methods of implementing programs. The need for state sponsored workshops and the desire for more help in implementing new health education programs were also frequently mentioned.

As indicated by their remarks, Massachusetts educators are cognizant of their health education problems and highly perceptive and practical in their suggestions for resolving them. Their many ideas for reforming and upgrading health education in the Commonwealth deserve thoughtful consideration. This is as they see it. The views from their desks provide the best possible base from which to launch a new and improved health education program in the public schools of Massachusetts.

F. THE FUTURE

The Challenge

As new and interesting developments in the area of administration, curriculum, and teacher education in health are reported across the nation, it is hoped the promise of a more balanced curriculum comes nearer to realization in Massachusetts schools. Educational administrators faced with the various critical health problems of youth in their local systems are turning more frequently to health specialists for assistance in planning and implementing health education programs. Only the acute shortage of professionally trained health education specialists limits wider implementation of comprehensive health education programs.

As noted in Part II, only four cities at the time of the survey employed directors or coordinators of health education. Yet the need for such consultants or coordinators ranked first among the recommendations listed by the respondents. The situation, however, is rapidly changing. The first and most significant trend in new health education programs is to employ a professional. The lack of qualified health educators offers a challenge to institutions of higher learning to meet the growing demand for such professionals. Another need, as expressed by the respondents, is for in-service education of present teachers. Here the opportunities for universities to extend their resources for upgrading local programs are virtually limitless.

Now that society has advanced and science has conquered some of man's health problems, the same sophisticated technology making these advances possible has produced new and more complex health concerns. A well informed population can more effectively anticipate and prevent rather than react to periodic crises. School and university administrators can contribute immeasurably towards improving the quality of life through carefully planned health education programs.

APPENDICES

APPENDIX A

In order to facilitate the Department's responsibility in the implementation of these criteria, a Curriculum Guide Steering Committee has been appointed. This Committee shall:

1. Recommend, with the assistance of Bureau specialists, the composition of the Curriculum Advisory Committee in each area to the Board of Education.
2. Develop and coordinate all activities related to Curriculum Guide development.
3. Develop criteria for Curriculum Guides.
4. Oversee direction and progress of each curriculum project.
5. Recommend budgetary allotments and expenditures to the Director of the Bureau of Elementary and Secondary Education.
6. Evaluate progress reports submitted by the Curriculum Advisory Committees.
7. Review and recommend proposals for the "field testing" of Curriculum Guides.
8. Recommend proposed Curriculum Guide to the State Board of Education for approval and adoption.
9. Coordinate the distribution of printed Curriculum Guides
10. Determine overall time schedules for development of curriculum guides in each area.

APPENDIX B

THE COMMONWEALTH OF MASSACHUSETTS
Department of Education

POLICY STATEMENT ON SCHOOL HEALTH EDUCATION

The World Health Organization has broadly defined health as being: "...a state of complete physical, mental and social well-being; not merely the absence of disease or infirmity."

Chapter 71, Section 1 of Massachusetts law currently mandates instruction in "physiology and hygiene." This law serves as the basis for instruction in all major health topic areas for Massachusetts schools.

The school-age child's state of illness or wellness has a far-reaching effect upon his ability to achieve the most of which he is capable from his educational opportunity. The role of the school in conserving and promoting good health is traditional and clear cut.

The total school health program is comprised of three phases: health instruction, healthful school environment and school health services. Local school districts must work to coordinate and fully articulate all three phases under appropriate educational leadership.

The Board of Education and the Department emphasize that there is neither time in the curriculum nor justification for separate courses in any of the many categorical health topic areas periodically advocated by special interest groups. Fragmentation, or the "bits and pieces" approach must be avoided in order to achieve a meaningful and effective total school program.

The Board of Education and the Department therefore recommend inclusion of all health topics within a comprehensive health program extending K-12 with full attention to scope and sequence.

Such an approach avoids teaching specific health topics in isolation, avoids "crash programs" and establishes the organizational framework within which local school districts may establish their own priorities and meet the health needs of school-age children in their own communities. An excellent vehicle for accomplishing this and also for involving other community agencies, is the formation of a school health council in each school district.

Health is a unified concept and is concerned with knowledge, habits, attitudes and behavior of the total and maturing human being. One sound, interrelated and sequential health program not only saves valuable curriculum time, but assures that all topics will be a part of (not apart from) a long-range, ongoing program with complete and detailed consideration at the appropriate grade level.

Voted by the
Board of Education
December 27, 1968

APPENDIX C

The Department specialists, one of whom shall be assigned as the project coordinator shall:

1. Recommend the membership of the Curriculum Advisory Committee to the Curriculum Guide Steering Committee.

2. Serve as resource persons to the Curriculum Guide Advisory Committee.

3. Maintain clear lines of communication among the Department, Advisory Committee, and the local school districts.

4. Serve as liaison between the Curriculum Guide Steering Committee and the Advisory Committee.

5. Submit periodic progress reports to the Curriculum Guide Steering Committee.

6. Assist in the editing of all materials prepared by the Curriculum Advisory Committee

7. Submit all edited materials to the Curriculum Guide Steering Committee for its review and subsequent recommendation to the State Board of Education.

APPENDIX D

ACKNOWLEDGEMENTS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF EDUCATION

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Marillynn Wilson	New England Dairy and Food Council

Appreciation is extended to Mr. John Stalker, Director of the Bureau of Nutrition Education and School Food Services and members of his staff for their assistance in nutrition education.

APPENDIX E

The membership of the Curriculum Guide Advisory Committee shall:

1. Consist of representatives who have the ability to perform and the time to meet often in fulfilling their responsibilities.

2. Include representation from appropriate grade levels.

3. Include representation from the ranks of:

   a. Classroom teachers
   b. Administrators
   c. Colleges and universities

4. Reflect a geographical distribution within the Commonwealth.

5. Determine their chairman.

The functions of the Advisory Committee shall be to:

1. Determine the aims, goals, objectives and content of the particular project.

2. Establish priorities.

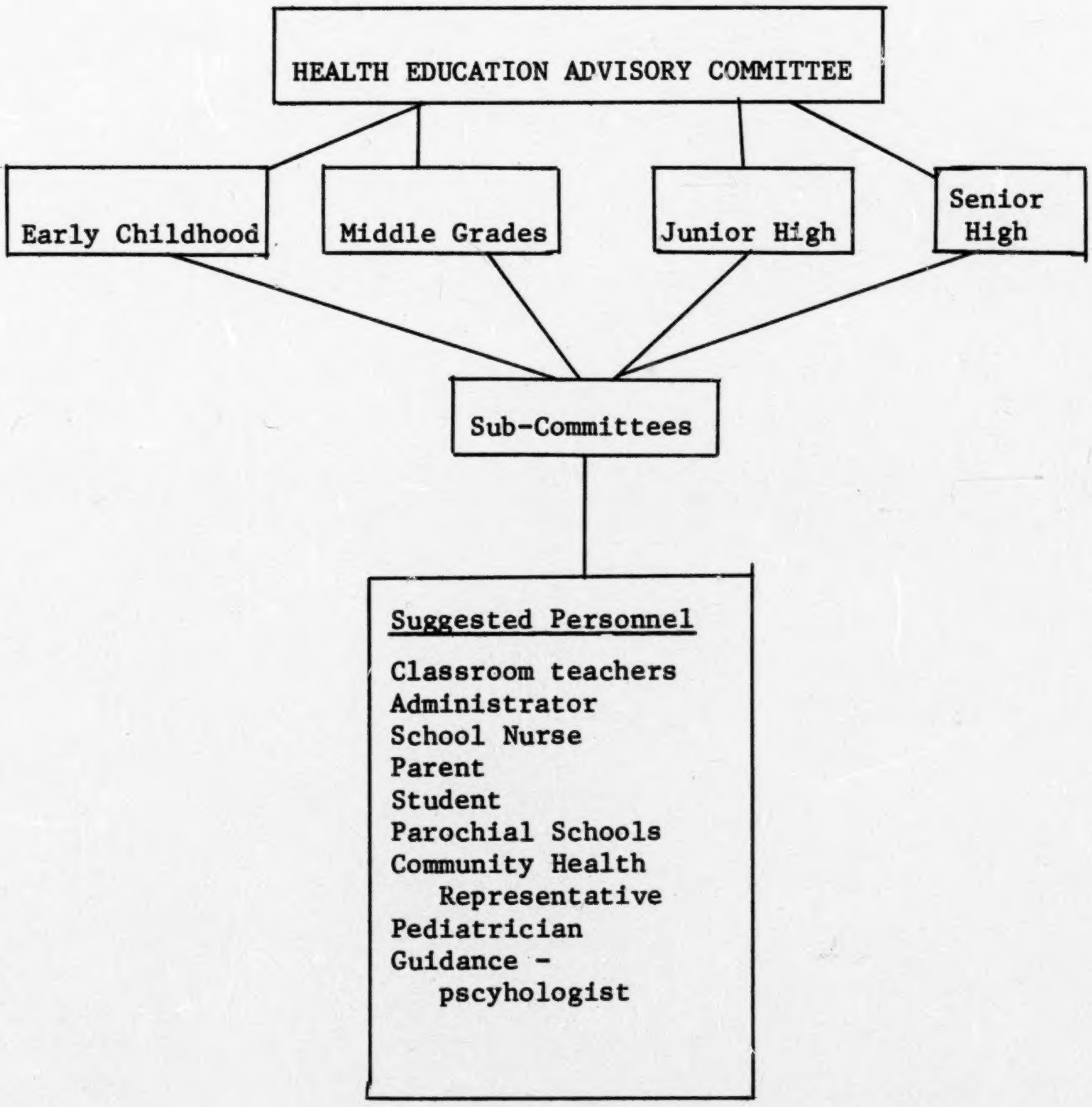
3. Study and evaluate current curriculum practices and ways to affect change.

4. Select sub-committees for appointed tasks and review their work.

5. Submit periodic progress reports for Department approval.

6. Insure that all deadlines are met.

APPENDIX F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Guidance - pscyhologist

PART II THE HEALTH EDUCATION CURRICULUM GUIDE

ED 062 648

PART II THE HEALTH EDUCATION CURRICULUM GUIDE

CG 007 170

HEALTH EDUCATION CURRICULUM GUIDE

Grades 1-12

THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF EDUCATION
DIVISION OF CURRICULUM AND INSTRUCTION
BUREAU OF ELEMENTARY AND SECONDARY EDUCATION

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FOREWORD

The health problems in the state and the nation can no longer be ignored. Conservation of our human resources is now one of our most critical responsibilities. The comprehensiveness of this curriculum guide should help to set the pattern for increased involvement of the home, school, and community in improving the quality of life of each child, so desperately needed for the '70's.

It is with this in mind that this curriculum guide has been designed. Intelligent use of this publication can serve as the initial step in filling a void in the total process of educating each child in the schools throughout the Commonwealth. It recognizes that health practices and behavior patterns need to start as early as possible in the child's learning experience. Health education must be made available in the educational setting.

All school systems in Massachusetts need to reassess their goals and objectives and carefully evaluate their health-education programs. Not until each system has provided an effective program with qualified teachers, will the needs of the children be met adequately.

Neil V. Sullivan
Commissioner of Education

January 1, 1971

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Marillynn Wilson	New England Dairy and Food Council

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The Department of Education wishes to acknowledge the United States Department of Health, Education and Welfare, Office of Education, Bureau of Research, Region I Office, John F. Kennedy Federal Building, Boston, Massachusetts for its support through a small Project Grant.

TABLE OF CONTENTS

Page

FOREWORD ii
ACKNOWLEDGEMENTS iv
TABLE OF CONTENTS vi
POLICY STATEMENT ON SCHOOL HEALTH EDUCATION ix
INTRODUCTION x
PURPOSE OF THE GUIDE xii
OVERVIEW xiv
EARLY CHILDHOOD 1
  I. PHYSICAL HEALTH 1
    Nutrition 1
  II. MENTAL AND SOCIAL HEALTH 6
    Tobacco, Alcohol, and other Drugs 6
    Emotional Development 12
  III.CONSUMER AND ENVIRONMENTAL HEALTH 17
    Consumer Health 17
  IV. SAFE LIVING 20
    Safety 20
MIDDLE GRADES 26
  I. PHYSICAL HEALTH 26
    Nutrition 26
  II. MENTAL AND SOCIAL HEALTH 30
    Alcohol 30
    Drugs 35
    Emotional Development 40
    Tobacco 45
  III. CONSUMER AND ENVIRONMENTAL HEALTH 50
    Consumer Health 50
  IV. SAFE LIVING 55
    Safety 55
JUNIOR HIGH 60

I. PHYSICAL HEALTH 60
Nutrition 60
II. MENTAL AND SOCIAL HEALTH 64
Alcohol 64
Drugs 69
Emotional Development 75
Tobacco 81
III. CONSUMER AND ENVIRONMENTAL HEALTH 86
Consumer Health 86
IV. SAFE LIVING 93
Safety 93
SENIOR HIGH 98
I. PHYSICAL HEALTH 98
Nutrition 98
II. MENTAL AND SOCIAL HEALTH 103
Alcohol 103
Drugs 109
Emotional Development 117
Tobacco 123
III. CONSUMER AND ENVIRONMENTAL HEALTH 128
Consumer Health 128
IV. SAFE LIVING 135
Safety 135
APPENDIX 142
BIBLIOGRAPHY 142
Books 142
Articles 149
Pamphlets 150
Periodicals 160
Monograph 160
Newsletter 160
Play 160
Sample Teaching Unit 160
AUDIO-VISUAL MATERIALS 161
Films 161

Filmstrips .164
Charts .166
Kits .166
Posters .166
Slides .167
Spirit Masters .167
Transparencies .167
Tape .168
Miscellaneous .168
AGENCIES AND ORGANIZATIONS PROVIDING ASSISTANCE AND MATERIALS .169
EVALUATION SHEET .175

THE COMMONWEALTH OF MASSACHUSETTS
Department of Education

POLICY STATEMENT ON SCHOOL HEALTH EDUCATION

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The total school health program is comprised of three phases: health instruction, healthful school environment and school health services. Local school districts must work to coordinate and fully articulate all three phases under appropriate educational leadership.

The Board of Education and the Department emphasize that there is neither time in the curriculum nor justification for separate courses in any of the many categorical health topic areas periodically advocated by special interest groups. Fragmentation, or the "bits and pieces" approach must be avoided in order to achieve a meaningful and effective total school program.

The Board of Education and the Department therefore recommend inclusion of all health topics within a comprehensive health program extending K-12 with full attention to scope and sequence.

Such an approach avoids teaching specific health topics in isolation, avoids "crash programs" and establishes the organizational framework within which local school districts may establish their own priorities and meet the health needs of school-age children in their own communities. An excellent vehicle for accomplishing this and also for involving other community agencies, is the formation of a school health council in each school district.

Health is a unified concept and is concerned with knowledge, habits, attitudes and behavior of the total and maturing human being. One sound, interrelated and sequential health program not only saves valuable curriculum time, but assures that all topics will be a part of (not apart from) a long-range, ongoing program with complete and detailed consideration at the appropriate grade level.

Voted by the
Board of Education
November, 1968

INTRODUCTION

Health education is a life science. It is the sum of all the experiences which will assist in changing behavior patterns for the better as they relate to the application of knowledge to produce and maintain health. Health is a quality of life, and the degree or level is determined by the interest or ambitions of the individual. To achieve this quality of effective living, youth must receive the available scientific facts by way of the educational process in all areas of the school curriculum. Circumstances in our society clearly indicate that the school environment, created for the purpose of preparing future citizens, in cooperation with the home, community leaders, and resource personnel, must assume the responsibility for educating youth in matters concerned with the quality of living. Youth deserves the right to live effectively in his environment affected as it is by man.

A comprehensive, sequential, health-instruction program should be provided in every school throughout the school years. The health coordinator, health teacher, classroom teacher, and other resource personnel should guide youth in the process of discovering the facts which help him make favorable behavioral decisions about health. Acquisition of such knowledge should be an on-going process, because health is the result of a continuous living experience. And as the life span increases, health education opportunities should be designed to maintain the most effective quality of life.

An individual's or a community's success in maintaining a better than satisfactory level of health and safety depends equally upon that which is done by the individual as well as by group action and reaction. There should be complete interdependence where health is concerned, requiring all persons to make decisions which reflect desirable behavior patterns to benefit the individual, home, school, and community.

A major responsibility of all educators is to be currently informed about the emerging health issues. Pupils' concerns must become teachers' concerns if learning is to become reality.

This health guide has been prepared by individuals representing various levels of education at the school and college levels as well as representatives from public health, community health, voluntary health organizations, and professional organizations. It offers school administrators, supervisors, coordinators, teachers, and others, guidelines for presenting health information in an educational environment to children and youth. The guide is deliberately designed to be fluid, permitting local communities the privilege of designing the course work in detail from the first years of school to the last in accordance with the specific priorities of the local community.

Educators, recognizing the ever increasing abundance of health problems existing today, suggest that the concepts and primary concerns found in the guide should evolve in course work via a comprehensive, sequential program in grades 1-12. During the periods when growth and development are significant, children and youth should acquire information relevant to their needs. Such information affords them a basis for interaction with their classmates as well as a foundation for making wise decisions when confronted with having to prevent illness and maintain health.

This guide relates to such current critical areas of health as drug information, consumer health, preventing disease and arresting disorders, avoiding accidents, techniques for maintaining healthy teeth, methods of controlling earth pollutants, understanding how to get along with people, making wise decisions when buying and eating foods, and other vital areas. The guide recognizes that the school is uniquely suited to the task of encouraging youth to develop ways to manage themselves physically, mentally, socially, and culturally in their environment.

Children and young adults will enjoy the opportunity of improving the quality of living by discovering how to live more effectively. Influential teachers, who are exemplars of health practices, may increase their own measure of effectiveness and automatically transmit the desire to follow a health career to those they teach. Health education can be a unique instrument to gain this end, and the teacher of health may well be considered the sculptor of the future.

Dana L. Farnsworth, M.D.

Elizabeth A. Neilson, Ed.D.

PURPOSE OF THE GUIDE

This Health Education Curriculum Guide has been developed to assist local school districts develop stronger, more effective school-health programs. The guide does not pretend to serve as a panacea for all the health needs which exist in our society. It should, however, serve to expand the thinking and give direction to curriculum committees responsible for improving the quality of health instruction in our schools.

Due to present demands for assistance in certain critical health areas, the Department of Education and the Health Education Curriculum Advisory Committee have established the seven fields of study which are included in this initial publication as priority needs. Additional fields of study are now nearing completion and will be published in the near future.

The Department of Education is aware that refinement of this initially-published section of the guide will of necessity have to be made. As educators throughout the Commonwealth use this document to guide them in the development of local programs, suggestions for improving the guide may well be forthcoming. For this purpose, an evaluation sheet has been included in the guide wherein comments, criticisms, and suggestions from local school districts, may be forwarded to the Department.

The immediate concern of educators, physicians, parents, health personnel, and others for the critical health needs of our youth now requires positive action on the part of all citizens throughout the Commonwealth.

The guide is organized into four broad areas of health:

Physical Health
Mental and Social Health
Consumer and Environmental Health
Safe Living

These four broad areas encompass the essential qualities of well-being which enable the child to live effectively and enjoyably. The following specific fields of study have been designated as priority needs and thus are included in this initial and partial publication:

Consumer Health
Drugs – Alcohol, Tobacco, and Other Drugs
Emotional Development
Nutrition
Safety and Accident Prevention

At the completion of the entire curriculum guide, the additional fields of study will include the following:

Body Structure and Function
Cleanliness and Appearance
Community Health
Dental Health
Disaster Behavior
Diseases and Disorders
Ecology
Family Life
First Aid
Fitness and Body Dynamics
Health Careers
Sensory Perception
Sleep, Rest, and Relaxation
World Health

These various subject areas, or fields of study, have been isolated for convenience in developing curriculum in the many communities throughout the Commonwealth. These fields of study will be most effective if they are interwoven one with another. For example, drugs cannot be taught without considering emotional development and body functions.

As school systems continue to develop curriculum in health education, the following suggestions might be considered:

1. Establish a health education committee in the local school system. This committee should have a broad representation of administrators, teachers, health related personnel, community health representatives, religious groups, parents, and students.
2. Have the committee set up goals and objectives to meet the health needs of the children and the specific local community under the direction of a well-qualified health coordinator.
3. Have the committee evaluate the school health program, considering all aspects of the health-instruction phase of the program, the health services provided for the school child, and the healthful school environment which is so important in contributing to the learning situation.
4. Organize a curriculum sub-committee and develop a course of study, insuring flexibility in sequence and content consistent with the health interests and needs of the students and local community. Utilization by this committee of the Department of Education Health Education Curriculum Guide as an aid in developing local curricular materials is recommended. It is not recommended that this guide be used as a teaching guide by the classroom teacher.
5. Utilize qualified individuals, agencies, voluntary organizations, and professional associations locally and throughout the state as important resources.

OVERVIEW

Area I PHYSICAL HEALTH

Content includes: *Body Structure and Function, Cleanliness and Appearance, Dental Health, Fitness and Body Dynamics, Nutrition, Diseases and Disorders, Sensory Perception, Sleep, Rest, and Relaxation.*

The Physical Health area focuses on factors which determine the level of health each child and youth may possess. The student discovers how his growth and development are partly affected by the body he inherits and partly by his behavior and environment.

The student becomes aware of the health factors which profoundly affect his growth process. He discovers how his daily living routine favorably or unfavorably controls his health. He also becomes aware of the body's basic structure and function – its anatomy and physiology – and techniques for maintaining the masterpiece. The student learns that there is a close interrelationship among all of his complex physical body parts. He learns that the body needs special nutrients; regularly scheduled physical activity; daily application of known dental facts; and a planned program of sleep, rest, and relaxation to maintain health, control disorders, and prevent diseases. This area helps the student to understand and appreciate his physical appearance and his internal mechanism. He discovers that the intricacies of the functioning of the body systems can be made simple by regularly scheduled application of health facts, which in turn, prove economical by preventing health problems.

Area I guides the student to a greater appreciation of his body as he learns that it is far more complex than any computer or mechanical invention created by man.

Area II MENTAL AND SOCIAL HEALTH

Content includes: *Emotional Development and Family Life and Drugs.*

Mental health is a multidimensional area involving all aspects of living, and it is manifested directly in terms of emotional and social well-being.

Many of the hospital beds in this country are occupied by the mentally ill, and thousands of people outside the hospitals are in real need of psychiatric help to restore their sense of values and their ability to carry on major life functions in a pleasant and efficient manner.

Both youth and adults need to know themselves and be able to adjust to the complexities and pressures of present-day living.

As the population increases and large masses of society are living in close proximity to one another, there is significant need to understand how the other person feels, why he feels this way, and how it affects his behavior and the behavior of others. It is for this purpose that the mental health material in this section was designed.

There is deep concern today that the sociological health problems are becoming more significant in our affluent society. It is important that students be given opportunities to understand better the health implications relative to all chemical substances which have a potential for abuse.

The content included in this area is relevant to all other subject areas of the health curriculum. Through a growing understanding of the development of human emotions, the student will be better prepared to make decisions relative to personal desires, social relationships, and personal family interactions, permitting him to participate in a happy and productive life.

Area III CONSUMER AND ENVIRONMENTAL HEALTH

Content includes: *Ecology, Health Careers, Community Health, World Health, and Consumer Health.*

The Consumer and Environmental Health area focuses on the interrelationships of man with his fellow men and his environment. The student discovers how man is influenced by his environment and how he alters the environment both beneficially and adversely. Awareness of the scope of environmental problems including global involvement is desirable.

Modern community health programs are explored on local, state, national, and international levels. The roles of official and voluntary health agencies, of professional associations, and of foundations are studied, and the effect of legislation, both state and federal, is identified. An historical review of the development of public health in Massachusetts and current program areas provides an excellent prototype for those who seek approved models.

The student becomes familiar with the varied and diverse vocational opportunities offered by the health field. In addition to monetary return, the satisfaction of service to one's fellow man through a health career is emphasized.

An understanding of how to be a knowledgeable consumer of goods and of health services assists the student as he eventually becomes an independent health consumer. Quackery is explored in depth, including historical examples as well as modern examples and techniques. Emphasis is placed on its prevalence, how to recognize it, and how to avoid being a victim.

The role of the individual as a consumer of health services and his responsibility for their proper utilization is defined.

Area IV SAFE LIVING

Content includes: *First Aid, Safety and Accident Prevention, and Disaster Behavior.*

Safe Living is one of the most critical areas in today's society. Affluence and giant steps in the field of science have made large numbers of persons, particularly our youth, more vulnerable to accident situations. The increasing scope of recreational pursuits such as swimming and boating without proper training and lack of emergency measures to be taken in times of disaster have created new problems. These are of major concern to all citizens.

Safe Living implies the development of safety attitudes essential for survival in our now complex society. Although man boasts of controlling his environment, there is still need for the student to understand the emergency nature of a catastrophe and the procedures necessary to protect himself and others.

Education for accident prevention and emergency care is the responsibility of the individual, the home, the school, and the community.

EARLY CHILDHOOD

Area I **PHYSICAL HEALTH**

Field of Study NUTRITION

Objectives

To help the pupil to:

1. Establish an understanding of what food is.
2. Know that certain foods are needed every day.
3. Acquire good food habits.
4. Understand that eating good food is an enjoyable experience.
5. Appreciate the importance of good health habits for "safe" food.
6. Appreciate the need for cooperation between home and school in nutrition education.

NUTRITION (Early Childhood)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Food is a substance necessary to all living things. Necessary for plants and animals *A wide variety of food is good to eat.*	1. Bring in magazine pictures of favorite foods. Mount and label them. 2. Construct booklets, posters, or collages of food cut-outs. 3. Have the class play a game, classifying new foods and non-foods. 4. Have the class play the game "Twenty Questions," using different foods.	*Books* Bureau of Nutrition. Education and School Food Services. *Focus on Nutrition.* Byrd, Oliver E., *et al. Health (1).* Leverton, Ruth M. *Food Becomes You.* *Filmstrip* *The Food We Eat.* American Bakers' Association. *Pamphlet* "My Friend the Cow." New England Dairy and Food Council. *Spirit Masters* *C Is for Citrus.* Florida Citrus Commission. *Four Seasons.* Florida Citrus Commission. *The Orange Clock.* Florida Citrus Commission. *Word Picture Story of Florida Citrus.* Florida Citrus Commission.
Many foods are necessary for growth and health. Four basic groups *Foods can appear in different forms.*	1. Start a notebook of pictures of the foods contained in the four basic food groups. 2. Use food models to set up a display, illustrating food in the basic four food groups. 3. Construct mobiles of the basic four food groups. 4. Using magazine pictures, show the same food in different forms, e.g., potato – mashed, baked, fried, salad. 5. Discuss foods eaten at home, types of foods, methods of cooking, etc.	*Books* United States Department of Agriculture. *Food, the Yearbook of Agriculture.* United States Department of Agriculture. (Available in Spanish and English). *The Good Foods Coloring Book.* *Films* *The Big Dinner Table.* New England Dairy and Food Council. *Eat Well, Grow Well.* Coronet Films.

85

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		Food Models. New England Dairy and Food Council. *Posters* *Daily Food Guide.* United States Department of Agriculture. *Follow the Food Guide Every Day.* New England Diary and Food Council. *Posters and Miniatures* *Every Day Eat the 1-2-3-4 Way.* New England Dairy and Food Council.
Well-balanced meals contain some food from each of the basic food groups. * 1. New foods 2. Well-planned snacks 3. Well-planned breakfast (supplies one-third of the daily food needs)	1. Discuss meals eaten by class members to see if each food group is represented. 2. Using pictures or food models, illustrate meals that have all food groups present in the recommended amounts. 3. Create various patterns for three, well-balanced meals a day, using food models. (Breakfast should contribute one-third of the daily food needs.) 4. Read school-lunch menus. Look for familiar foods prepared in different ways. 5. Consult with the food service supervisor to plan for tasting new menu items before they are served for lunch. 6. Prepare a list of new foods that the class would like to taste. 7. Plan a tasting party. Ask the school food service supervisor for help. Invite parents to the party. 8. Establish a "clean lunch plate" club. Keep a chart on how class members are doing.	*Books* Byrd, Oliver E., *et al. Health (2).* Callahan, Dorothy L., and Payne, Alma S. *The Great Nutrition Puzzle.* Irwin, L., *et al. Growing Everyday.* Irwin, L., *et al. You and Others.* *Comparison Cards* New England Dairy and Food Council. *Filmstrips* *Skimpy and a Good Breakfast.* Cereal Institute, Inc. *What's in Our Food.* American Bakers' Association. *Mobile* *Breakfast Unit – Basic Breakfast Pattern.* Cereal Institute, Inc.

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* Where food service is available, the Type A lunch should be explained.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	9. Using food models or magazine cutouts, make a display of nutritious snacks. Label each one to show the food group to which it belongs.	*Posters* *A Good Breakfast is Fun.* Florida Citrus Commission.
	10. Using comparison cards, compare the food value of a glass of milk and a glass of soft drink. (See Resources.)	*We Help You to Keep Fit.* Florida Citrus Commission.
	11. Prepare some simple nutritious snack foods.	
	12. Invite a resource person such as the Home Economics Coordinator to demonstrate how to prepare easy, tempting, between-meal snacks.	
	13. Have each child record what he ate for breakfast, and check it against the criteria of the basic four food groups. Classify each food as to the group to which it belongs.	
	14. Plan an easy breakfast party to enjoy in class. Make placemats and decorations.	
Eating good food is an enjoyable experience. 1. Well-cooked food 2. Attractive surroundings 3. Gracious table manners 4. Holiday menus	1. Collect magazine pictures of attractive table settings and dining areas. Have the pupils evaluate the pictures.	*Books* American Home Economics Association. *Family Holidays Around the World.* Byrd, Oliver E., *et al. Health (1).*
	2. Visit the cafeteria to learn proper procedures for getting a tray, utensils, and lunch as well as for returning the soiled utensils and trays.	*Film* *Beginning Responsibility: Lunch Manners.* Coronet Films.
	3. Make a centerpiece to use on the dining table at home.	
	4. Practice using gracious table manners.	
	5. Show illustrations of correct usage of flatware. Have the pupils practice usage at lunch.	
	6. Using role playing, act out the effect of noisy, rude people on others at mealtime.	
	7. Discuss holiday customs and menus. Read stories with holiday themes.	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Clean, safe food is important for health. 1. Clean cooking and eating utensils 2. Personal cleanliness	1. Have each member of the class help to prepare food at home, and report to the class. 2. Discuss the reasons for washing food before it is prepared or eaten.	*Book* Lowenberg, Miriam, *et al. Food and Man.*
Food should be inspected and stored properly to prevent spoilage.	3. Arrange to tour the school kitchen to see how food is made clean and kept clean. 4. List the reasons for washing hands before eating. Draw pictures to illustrate the reasons. 5. Show how foods are protected from dirt, air, and insects, e.g., packaging, canning, refrigerating, freezing.	
Home, school, and community should cooperate in nutrition education.	1. Have the class report what they have learned about nutrition to parents. 2. With the cooperation of the school food service supervisor, invite parents to lunch or breakfast. 3. Invite community resource people involved in food services to discuss their work. 4. Take a field trip to a dairy farm, bakery, or grocery store.	

Area II MENTAL AND SOCIAL HEALTH

Field of Study TOBACCO, ALCOHOL, AND OTHER DRUGS (Early Childhood)

Objectives

To help the pupil to:

1. Develop positive attitudes toward proper use of drugs as substances beneficial to man's well-being.
2. Learn about the potential dangers in the misuse of drugs.
3. Understand the harmful effects of smoking and of the abuse of alcohol.
4. Gain an understanding of the harmful effects of household chemical compounds and related substances.
5. Become informed about the sources of drugs.
6. Develop meaningful relationships with parents, doctors, nurses, and druggists.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Some drugs are used by doctors to promote better health. *Some drugs are prescribed by doctors to protect against illness.*	1. Discuss drugs which make people feel better (aspirins, cough medicine). 2. Plan a field trip to a pharmacy. 3. Encourage the pupils to participate in role playing of doctor and druggist. 4. Discuss and list the immunization shots the children have received. 5. Discuss the reasons why these shots were administered. 6. Schedule a visit by a school nurse or physician.	*Guide* *Drug Abuse Education.* American Pharmaceutical Association. *Pamphlet* "First Facts About Drugs." Food and Drug Administration. United States Department of Health, Education and Welfare.
Some drugs are used by doctors to treat illness.	1. List the times that pupils have needed medicine. If possible, have them name the medicines administered to treat the ailments. 2. Have some pupils relate occasions when they needed medicine and how the medicine was administered.	*Books* Kitzinger, Angela, and Hill, Patricia. *Drug Abuse A Source Book and Guide for Teachers.* National Education Association. *Drug Abuse: Escape to Nowhere.*
Some drugs are used by doctors and dentists to relieve pain. ***Drugs can be helpful to persons only if taken as prescribed explicitly by qualified physicians.***	1. Plan a trip to a dentist's office to observe the procedures. 2. Discuss uses and effects of anesthesia. 3. Have a child or children discuss their personal experiences with anesthesia. 4. Discuss superstitions concerning pain relief. 5. Show a doctor's prescription to the class. Emphasize the form and its importance (the signature of the doctor, the name of the patient, the directions to be followed, the name of the doctor, and any special notations). 6. Bring an empty medicine bottle to class and discuss the information on the label.	*Book* American School Health Association. *Teaching About Drugs.* *Pamplet* "Series on Specific Drugs." Public Health Service Publication. United States Department of Health, Education and Welfare.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Children should take medicine only when it is given to them by authorized persons. *Children should be wary of strange persons who want to give them food, candy, etc.* *Drugs belong to two large groups: those which are of natural origin and those which are of synthetic origin.* 1. Drugs from plants 2. Drugs produced in a laboratory	1. Role play a situation where an authorized adult gives the child medicine. 2. Role play a situation, showing the dangers of accepting gifts from strangers. 3. Schedule a visit to a greenhouse to see plants which produce drugs. 4. Schedule a visit to the classroom by a pharmacist or a herbalist.	*Pamphlet* "What We Can Do About Drug Abuse." Public Affairs Committee, Inc.
The use of the contents from old or unlabeled medicine containers can be dangerous.	1. Bring some empty medicine bottles to class. Read the labels to the children. Discuss the importance of labels and directions. 2. Pour acid or any other volatile substance from an unlabeled bottle onto a penny, and watch the chemical change. 3. Emphasize the importance of not touching or taking medicines that are not labeled. 4. Provide each of the children with a large sample label. Have them write "CAUTION" or "POISON" on the labels, and draw the skull and crossbones. They can take the sample labels home.	*Article* "Students and Drug Abuse," Reprint from *Today's Education.* *Books* Bauer, W.W. *Today's Health Guide.* Barnhoch, Sidney B. *Let's Talk About Drugs.* National Education Association, *Health Education.* *Pamphlets* "Children at Play with Poison." United States Public Health Service. "Crutch that Cripples." Council on Mental Health. American Medical Association. *Teaching Kits* *Winston Products for Education.*
Some drugs produce harmful effects on the body. *Excessive use of drugs may cause dependency which can be harmful.*	1. Bring in a cigarette package, and display the caution warning on the side.	*Book* Blakeslee, Alton. *What You Should Know About Drugs and Narcotics.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Drugs can be harmful if they are not taken exactly as prescribed by a qualified person.	2. Emphasize that the excessive use of anything is bad. Discuss habits such as nail biting and thumb sucking and reasons for this behavior. 3. Discuss the importance of following directions in activities such as games, sports, and when traveling. 4. Discuss the danger of using another person's medicine.	A complete list of bibliographies is available from the following sources: Food and Drug Administration, Washington, D.C. Academy of Pediatrics, Evanston, Illinois. *Pamphlet* "Dennis the Menace Takes a Poke at Poison." United States Department of Health, Education and Welfare.
Alcohol is used in many ways. *Excessive use of alcohol is dangerous.*	1. Discuss the use of alcohol as a beverage in some families. 2. Discuss alcoholic beverages used in religious rites.	*Transparencies* *Family Variations Regarding Tobacco and Alcohol.* 3M Company.
Tobacco affects the body in many ways. *There are specific reasons why people smoke.*	1. Demonstrate with a mechanical device how tar from a cigarette accumulates in the lungs. 2. To demonstrate the tar in a cigarette, light a cigarette and blow smoke through a tissue. 3. Encourage the pupils to discuss with their parents reasons for smoking. 4. Have the children notice and later discuss advertisements and messages about cigarette smoking on TV. 5. Discuss the medical effects of tobacco (heart disease, asthma, respiratory diseases, etc.).	*Book* Curtis, Lindsay. *Smoking or Health.* *Pamphlets* "What's New on Smoking in Films." United States Department of Health, Education and Welfare. "What's New on Smoking in Print." United States Department of Health, Education and Welfare. *Mechanical Smoking Device* Winston Products for Education.
Tobacco affects the environment as well as the individual.	1. Cigarettes are the cause of many home and forest fires. Discuss fire safety.	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	2. Discuss accidents which may be caused while lighting a cigarette. 3. Discuss the ways in which tobacco smoke may pollute the air. 4. Demonstrate with clear glass or plastic container how smoke pollutes.	
Household compounds and related substances contain chemicals and should be so labeled. *Certain household compounds are injurious to health.* *Parents should decide what should be placed in the medicine cabinet.* *Parents, doctors, dentists, nurses, and druggists contribute to good health.*	1. Display containers of household compounds and examine the warning signs (skull and crossbones). 2. Illustrate containers which have warnings (cleaning fluids and poisons). 3. Illustrate how bleach is injurious to fabric by pouring some full-strength on fabric and letting it set. Discuss how compounds can endanger health. 4. Ammonia fumes are toxic. Discuss the effects of inhaling these fumes. Bring in containers which have warning labels. 5. Discuss unsafe storage areas for medicines in the home. 6. Make posters, showing what to do and what not to do regarding the medicine cabinet. 7. Have the children role play being a doctor, nurse, druggist, or dentist. 8. Make a diorama of a dentist's or a doctor's office, showing children visiting the office. 9. Have the children put on a puppet show about doctors, dentists, nurses, and druggists.	
Doctors, dentists, druggists, and nurses perform many services in the community.	1. Make a mural of the health service areas of the community.	*Books* Byrd, Oliver E., *et al. Laidlaw Health Series* (1-3).

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The school physician and the school nurse provide periodic examinations and innoculations for good health.	2. Discuss administration by the nurse of oral vaccine and the Tine test.	Irwin, Leslie W., *et al. Dimensions in Health Series: All About You. Growing Every Day. You and Others.*
Parents need the help of health specialists for the care of every member of the family.	3. Prepare the pupils for periodic tests or the administration of vaccines.	Schneider, Robert E. *Methods and Materials of Health Education.*
	4. Have community resource people visit the class and discuss their roles.	
Many persons and places in the community offer information and help in the prevention and treatment of drug problems.	5. Visit local health agencies such as the District Nursing Association and the Visiting Nursing Association.	

Area II MENTAL AND SOCIAL HEALTH

Field of Study EMOTIONAL DEVELOPMENT (Early Childhood)

Objectives

To help the pupil to:

1. Appreciate that each person belongs to a family, a home, and a community.
2. Develop courtesy and cooperation as elements of a healthy and sound self-image.
3. Develop industry and scholarship.
4. Develop the qualities of honesty and self-reliance as a means of strengthening character.

EMOTIONAL DEVELOPMENT (Early Childhood)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Families, homes, and communities may be similar. 1. Provide shelter, love, and protection 2. Require rules and laws 3. Promote role development as male or female 4. Require cooperation of individual members *Families, homes, and communities may be different.* 1. Varied customs and ethnic backgrounds 2. Varied daily routines	1. Have each child write or tell a story about "Why My Family Is Important to Me." 2. Have each child draw a picture of a particular member of his family. 3. Engage the children in a discussion of the ways in which they might help out at home and in school. Have them make a mural to illustrate their suggestions. 4. Discuss any personal experiences the children have had while attending school in another community or country. 5. Discuss ways in which each child's family plans activities which will permit the members to be together. 6. Show illustrations of different environments. Discuss the living patterns of children in the jungle, desert, mountains, etc. 7. Introduce one or two new games to emphasize the importance of learning rules in order to enjoy the game. 8. Write the name of each child in the class on a card. Place the names in a box. To assign responsibilities, draw name cards from the box. 9. Make a study of family customs and holidays around the world. Include folk songs and traditional dances. Discuss how these customs and holidays differ.	*Books* Bannon, Laura M. *Baby Roo.* Los Angeles County Board of Education. *Guiding Today's Children.* McClosky, Robert. *One Morning in Maine.* *Films* *Moving Day–Timmy's New Neighbors.* Coronet Films. *Your Family.* Coronet Films. *Filmstrip* *Getting Along with the Family.* Society for Visual Education, Inc.
Human feelings are experienced by all people. *Happiness comes from giving, from receiving, and from the happiness and love of others.*	1. Discuss the various ways of promoting happiness. 2. Discuss or have the pupils write about "Happiness is . . . ."	*Books* Anderson, Hans C. *The Ugly Duckling.* Anglund, Joan W. *Love Is a Special Way of Feeling.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The expression and/or control of feelings differs in degree and kind.	3. Have the children make posters and drawings, illustrating various feelings.	Byler, Ruth, *et al. Teach Us What We Want to Know.*
Anger is a normal feeling. 1. Can be due to many factors 2. Can be controlled	4. Discuss reasons why people show emotions. 5. Have the children read or discuss stories or poems that show emotions.	Grollman, Earl A., ed. *Explaining Death to Children.* Irwin, Leslie W., *et al. Dimensions in Health Series: All About You. Growing Everyday. You and Others.*
Feeling sad is part of life.	6. Discuss acceptable ways of expressing anger. Role play acceptable ways of controlling and properly expressing anger.	*Film*
Fear is a normal and valuable feeling. 1. Can be a preventive factor to danger 2. Can be controlled 3. Excessive fear undesirable	7. Find acceptable ways of working off the feeling of anger (walking, running, playing hard, modeling clay, singing). 8. Discuss ways in which class members can promote better feelings toward one another. Put the suggestions into practice. 9. Discuss the many fears that an individual can have. Attempt to find reasons for them. 10. Have class members predict what might happen to an individual who is totally without fear. 11. List ways in which fears may benefit an individual.	*Don't Be Afraid.* Encyclopaedia Britannica Educational Corp.
The way one feels affects what one does.	1. Have the children talk about the quality of their schoolwork when they are happy and when they are sad, angry, or afraid. Ask them if they think the way they feel ever affects the way they work or play. 2. Have a "problem box." At a specific time each day, draw out one problem. Allow the children to discuss possible solutions to the problem. 3. Discuss the following questions: (1) Why does a person feel better when he discusses his problems with someone?	*Books* Biem, Jerrold. *The Smallest Boy in the Class.* Leaf, Munro. *Fair Play.* *Film* *Let's Play Fair.* Coronet Films. *Filmstrip* *Learning to Be Forgiving.* Society for Visual Education, Inc.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	(2) Why is it important to listen to someone who has a problem? 4. Hold group discussions on how to share fun and sadness with others.	
Everyone can do something well. *Growth patterns and natural abilities vary with each individual.* 1. Good skills developed 2. Memory improved through repetition 3. Efficiency improved through skill development	1. Have a classroom or library display on "What I Do Best." With teacher assistance each child can decide upon a project for this display. 2. Through the use of different media observe and discuss differences in the growth of pets, flowers, and people. 3. Use baby pictures and height and weight charts to show growth. Discuss variations of growth in people. 4. Have each child make a booklet called "All About Me." He can include pictures, drawings, and stories about himself, his home, and his likes and dislikes. 5. Plan together certain daily routines that save time. 6. Look for better ways of doing daily work. 7. Discuss the importance of good work habits. Concentrate on a few at a time so that they can be developed properly. 8. Show that the use of good work habits results in time saved for doing special projects. 9. Discuss ways in which the children can note improvements in their work. Keep samples for future reference.	*Book* Bauer, W.W., *et al. Health for All (1-3).* *Pamphlets* "Don't Push Me!" Association for Childhood Education International. "Helping Children Toward Freedom of Expression." Early Childhood Education Council of New York.
Character development is influenced by responsible behavior.	1. Tell the children to get a drink of water without first lining up. Discuss the situation and look for better ways of proceeding.	*Books* Byrd, Oliver E., *et al. Health* (1-3).

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	2. Have the children put on a puppet show, illustrating traits which develop character (courtesy, honesty, self-reliance, sociability, cooperation).	Riwkim-Brick, Anna. *Dirk Lives in Holland.* *Film* *Kindness to Others.* Coronet Films.
	3. Discuss the importance of respecting another person's rights and property.	*Filmstrips*
	4. Have the class draw pictures, showing children helping others.	*Manners at Home.* McGraw-Hill Book Company. *Manners at School.* McGraw-Hill Book Company.

Area III **CONSUMER AND ENVIRONMENTAL HEALTH**

Field of Study CONSUMER HEALTH (Early Childhood)

Objectives

To help the pupil to:

1. Become acquainted with the variety of health products now available.
2. Become familiar with the various individuals who provide health services and products.
3. Select products wisely.

CONSUMER HEALTH (Early Childhood)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
There are many reliable health products. 1. Foods 2. Clothing 3. Medicine and drugs*	1. Have the pupils discuss the various health products that they use in their homes. 2. Have the pupils collect a variety of labels and then discuss what these labels tell about the food that is inside the container.	*Book* Kieve, A. *Magic, Faith and Healing.* *Teaching Unit* *Defenses Against Quackery.* American Medical Association.
Some products do not contribute to good health. 1. Fad foods 2. Dangerous toys 3. Medicines and drugs *Health products are packaged for cleanliness and safety.* *Foods and medicines are preserved through the use of refrigeration and rapid transportation.*	1. Have the pupils identify some products that do not contribute to good health. 2. Have the pupils visit a local grocery store and identify the various methods of food packaging and protection. 3. Discuss ways in which fresh and frozen foods are transported to protect the health of the consumer.	
Many people provide reliable health products and services. 1. Individuals a. Grocer b. Pharmacist c. Nurse, doctor, dentist 2. Services a. Hospitals b. Clinics c. School insurance	1. Have the pupils visit a pharmacy and identify the various health products available. 2. Invite the school nurse, physician, or dentist to speak to the class concerning reliable health services and products. 3. Discuss school insurance at the time when children pay for school insurance at the beginning of the year.	*Books* Dudley, N. *Linda Goes to the Hospital.* Meeker, A. *How Hospitals Help Us.* Memling, C. *We Went to the Doctor.* Pyne, M. *The Hospital.* Thompson, F. *About Doctor John.*

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*See section on Drugs.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Some individuals do not provide good health products. 1. Health "quacks" 2. Some strangers	1. Discuss the moral of the story *Jack and the Beanstalk.* 2. Role play a situation where a strange adult attempts to sell products to youngsters without the parents' consent.	*Transparencies* *Danger/Stranger.* D.C.A. Educational Products, Inc.
One's health may be affected by what is purchased. Effects of advertising (TV and radio, magazines and newspapers, billboards) *A wise selection of health products contributes to healthy and happy living.*	1. Discuss popular advertisements children see on TV. Ask them if they have ever been disappointed with a product which the advertisements promoted. Discuss such a product. 2. Have the pupils role play a trip to a shopping center, where they select health products. Discuss the value of each.	*Books* Byrd, Oliver E., *et al. Health* (1-3). Irwin, Leslie W., *et al. Dimensions in Health Series: All About you. Growing Every Day. You and Others.*

Area IV **SAFE LIVING**

Field of Study SAFETY (Early Childhood)

Objectives

To help the pupil to:

1. Develop an increased awareness of hazards in the home, school, and community.
2. Understand that most accidents can be prevented.
3. Develop safety habits which will result in safe behavior patterns.
4. Acquire an appreciation for the many individuals who are helping him live safely.

SAFETY (Early Childhood)

Concepts and Primary Concerns

An awareness of the importance of safety to oneself and others will create a safer environment.

1. Safety at home
   - a. Toys, equipment, and other hazards
   - b. Electrical equipment and outlets
2. Safety in the neighborhood
   - a. Play areas
   - b. Strangers
   - c. Pets
3. Safety to and from school
   - a. Walking
   - b. Riding (bicycle, car, bus)
4. Safety at school (gymnasium, corridors, playgrounds)

Sample Learning Experiences

1. Discuss why safety at home is important. Identify the kinds of accidents which are common at this age level.
2. Discuss consideration for the safety of others in the home and the neighborhood.
3. Demonstrate the correct use of common electrical equipment.
4. Prepare an exhibit of hazardous objects or pictures depicting such objects found in the home.
5. Discuss storage and proper use of such hazardous items as knives, metal toys, and scissors.
6. Have the children make posters, showing accidents which can occur on the stairs.
7. Discuss the reasons for avoiding strange dogs and cats. Talk about the "leash law" in the community.
8. Dramatize what to do in different situations when approached by a stranger.
9. Have the pupils talk about safety hazards in the neighborhood. Discuss how these can be eliminated.
10. Discuss the hazards of discarded refrigerators.
11. Dramatize what to do if a ball goes into the street.
12. Take a walk to the nearest overhead electric lines. Discuss the hazard of touching any fallen wires or flying kites near power lines.
13. Identify potential hazards and the safest routes between the playground and school. Draw a map of these routes.

Resources

Books

Irwin, Leslie W., *et al. You and Others.*

Stack, Herbert, and Elkow, J. Duke. *Education for Safe Living.*

Films

Primary Safety on the School Playground. Coronet Films.

The Safest Way. American Automobile Association.

Safety to and from School. Young American Films, Inc.

Street Safety for Primary Grades. Eastman Kodak Company.

10 Otto the Auto Films. American Automobile Association.

Filmstrips

Be a Better Pedal Pusher. Society for Visual Education, Inc.

Best Route to School. American Automobile Association.

Look Both Ways. American Automobile Association.

Playing Safely. Young American Films, Inc.

Safe and Sound at Home. Society for Visual Education, Inc.

Walt Disney Safety Tales. Encyclopaedia Britannica Educational Corp.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	14. Have the children make miniature traffic lights. Dramatize crossing at intersections and discuss the safest ways to cross streets. 15. Construct an intersection and have the children use toy automobiles to dramatize safety situations. 16. Have the children make traffic-sign posters. Role play situations which stress responding to signs they may find in their neighborhood. 17. Have the children make a list of bicycle inspection dates. 18. Plan a bicycle safe-riding course with the help of the local police department. 19. Discuss the use of automobile safety belts. 20. Role play riding to school safely as a car passenger (entering and leaving on the curbside; waiting until everyone is seated before closing the door). 21. Role play good conduct on the bus (entering, riding, and leaving). 22. Have the children make bus-safety posters early in the school year. 23. Practice school bus drills for emergency situations. 24. Take a tour of the school building. Discuss the safest ways to enter and leave the building. 25. During recess visit school play areas, and watch the other children at play. Discuss the safe-play areas and use of playground equipment. 26. Have the children make posters of school playground safety scenes.	*Guides* *10 Traffic Safety Guides.* American Automobile Association. *Pamphlets* "School Bus Safety Rules." Massachusetts Safety Council. "Terry the Tricycle." American Automobile Association. *Posters* *School Safety Poster Packets.* Massachusetts Safety Council. *Stories* *10 Otto the Auto Stories for Teachers of Primary Grades.* American Automobile Association. *Transparencies* *Safety Signs on Our Street.* D.C.A. Micro-Study Units.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	27. Have the physical education teacher demonstrate the safe use of equipment on the playground. 28. Demonstrate the safe use of classroom materials. 29. Discuss general safety practices in the classroom. 30. Have a patrol boy and patrol girl discuss and demonstrate their jobs. Have the children draw pictures of the safety patrol working.	
Safety rules are necessary for the protection of life and property. 1. Courtesy and good conduct essential 2. Obeying those in authority important	1. Discuss the procedure to follow when a hazard is discovered. 2. Discuss how following safety laws and regulations help the policeman, fire fighters, and hospital employees. 3. Discuss how following safety rules and regulations help our families and friends. 4. Role play how the lack of courtesy can cause a hazard (at the drinking fountain, on the stairs). 5. Discuss safety practices in the lunch room and other school rooms used by the children.	*Books* Byrd, Oliver E., *et al. Health* (1-3). Irwin, Leslie W., *et al. Dimensions in Health Series: All About You.*
Each person has a responsibility in accident and fire prevention. 1. Accident prevention 2. Fire prevention (causes) 3. Fire protection a. Fire department b. Fire drills c. Fire equipment	1. Draw pictures, showing ways to prevent accidents. 2. Discuss the hazards of wet floors. 3. Discuss an actual accident in the home and how it could have been prevented. 4. Develop a home safety checklist with the children. Have them take it home. 5. Discuss individual responsibility in reporting accidents.	*Book* Schneider, Robert E. *Methods and Materials of Health Education.* *Guide* *Suggested Guide for Safety Instruction: Fire Prevention.* American Red Cross.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	6. Develop a "Code of Prevention."	*Pamphlet*
	7. Have a few children make a scrapbook of fire stories reported in the local newspaper.	"Fire Safety – For Teachers of Primary Grades." National Education Association.
	8. Discuss the causes of local fires and how they could be prevented.	
	9. Invite a firefighter to discuss how to prevent fires.	
	10. Role play how good housekeeping habits can prevent fires.	
	11. Show the children the various fire alarms in and around the school. Discuss their use and emphasize the dangers of sounding false alarms.	
	12. Have the pupils participate in a "Fire Protection Hunt" in the school, noting where various pieces of fire protection equipment are located. Write a creative story about a particular piece of equipment, its location and importance.	
Safety the year round is important.	1. Identify the safe places in the neighborhood for winter play activities.	*Filmstrip*
1. Winter safety a. Sledding b. Skating c. Skiing d. Snowmobiling	2. Plan bulletin boards with the children, showing safe activities for winter and summer.	*Safety at Christmas.* Young American Films, Inc. *Pamphlets*
2. Summer safety a. Swimming b. Boating and canoeing c. Camping d. Flying kites	3. Take the pupils on a field trip or picnic to the nearest swimming area. Discuss the safety regulations for swimming and boating.	"Skiing Safely." Massachusetts Safety Council. "Swimming." Massachusetts Safety Council.
3. Holiday safety a. Halloween	4. Discuss the importance of safety just prior to a given holiday season.	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
b. Christmas c. Independence Day (fireworks)		
Skill development is essential in meeting and handling emergencies.	1. Identify and list emergency situations. 2. Discuss and role play some of these situations. Discuss steps to take in the event of a given emergency. 3. Have the children practice making emergency telephone calls. 4. Pretend there is fire in a home and have the children dramatize the situation. 5. Discuss what should be done if someone has swallowed poison. 6. Identify the nearest poison center. Have each child make a telephone dial with the telephone number in the center of the dial. The children can take these dials home. 7. Make a list of people and their telephone numbers who can help in an emergency. Have the children take the list home.	*Book* Irwin, Leslie W., *et al. Dimensions in Health Series: Growing Every Day.* *Pamphlet* "Ten Little Tasters." Imagination, Inc.
There are individuals and groups of people working to promote safety for all.	1. Discuss the ways in which policemen help others (help train school safety patrols, direct traffic, see that people obey traffic laws, etc.). 2. Discuss the jobs of the sanitary and the food inspectors and how they help us. 3. Discuss the roles of Registry of Motor Vehicles inspectors, fire inspectors, etc., in keeping homes and communities safe. 4. Invite as many of the above officials as possible to class to tell about their jobs.	*Book* Grout, Ruth E. *Health Teaching in Schools.*

MIDDLE GRADES

Area I **PHYSICAL HEALTH**

Field of Study NUTRITION

Objectives

To help the pupil to:

1. Learn about the nutrients of the basic four food groups and how they relate to the body.
2. Appreciate the value of a well-balanced diet for optimum health.
3. Understand the process of digestion.
4. Become aware of the network of industries involved in supplying food to the public.
5. Develop an understanding of food habits and customs in other countries.

NUTRITION (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The nutrients supplied by the basic four food groups keep us healthy. 1. Needed for growth and development 2. Can appear in different forms	1. Review the basic four food groups, the foods included in each group, and the amounts recommended. 2. Discuss the terms *nutrition, nutrients, and calories.*	*Book* Leverton, Ruth M. *Food Becomes You.* *Films* *What's Good to Eat? Food That Builds Good Health.* New England Dairy and Food Council.
Definite amounts of foods from the basic four food groups are needed daily. 1. Milk and meat groups (important for growth) 2. Proteins (build and repair body cells) 3. Carbohydrates (chief fuel foods) 4. Fats (supply over twice as much energy per gram as carbohydrates) 5. Vitamins a. Help maintain body tissue b. Help prevent dietary deficiency diseases 6. Minerals a. Build bones and teeth b. Help regulate body processes c. Help prevent dietary diseases 7. Water (essential to diet)	3. List foods which appear in different forms when cooked. For example: eggs – fried, scrambled, and boiled. 4. Have the pupils construct a basic four food mobile. 5. Have the pupils make posters of foods they ate for lunch, and classify them according to food group. 6. Plan a spelling bee of nutrition terms. 7. Have the pupils report on the functions of nutrients and on food sources. 8. Have the pupils relate food sources of vitamins to the Basic Four Guide. 9. Discuss dietary deficiency diseases and their causes. 10. Have the pupils report on the functions of water in the body. 11. Have the pupils do research and report on where the community obtains its supply of water. Precautions taken to insure a safe supply should be included.	*Mobile* *A Basic Breakfast Pattern.* Cereal Institute, Inc. *Pamphlets* "Get Aboard the Good Ship Vitamin C." Florida Citrus Commission. "Guide to Good Eating." New England Dairy and Food Council. "The Nutrition Ladder to Better Health." Florida Citrus Commission.
The "type A" lunch contributes one-third of the daily food needs. 1. "Type A" lunch requirements established by federal government	1. Have the pupils examine the school lunch menu and analyze it for the basic four food groups. 2. Arrange a tour of the kitchen with the food	*Films* *Food, Energy and You.* New England Dairy and Food Council.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
2. Daily servings a. Two ounces of protein food b. Three-fourths cup each of two or more vegetables or fruit or both c. Serving of whole-grain or enriched bread d. One teaspoon of fortified margarine or butter e. One-half pint of whole unflavored milk	service supervisor to learn where foods come from, how foods are stored, and how meals are prepared. 3. Have the pupils write a thank-you note to the cafeteria personnel after their visit. 4. Have the pupils make a poster of the digestive system and show where food is broken down. 5. Discuss what teeth do to food.	*How Food Becomes You.* New England Dairy and Food Council. *Nutrition in Tooth Formation and Dental Caries.* American Medical Association. *What Do We Know About Teeth?* New England Dairy and Food Council.
When eaten, food is broken down and changed in the body. 1. Digestion begins in mouth 2. Healthy teeth important for proper digestion	6. Assign individuals to report on such famous men in the food field as Spallanzani, Appert, van Leeuwenhock, Pasteur, Funk, Underwood, Birdseye.	*Pamphlets* "Dairy Foods in the U.S.A." New England Dairy and Food Council. "Uncle Jim's Dairy Farm." New England Dairy and Food Council.
Science has helped to increase man's food supply, improve the quality of food, and make food safe to eat.	7. Have the pupils make a display of various types of food packaging.	"Where We Get Our Food." New England Dairy and Food Council.
Many people cooperate to bring food to the consumer. 1. Food industry relates to most other industries 2. Environment determines foods to be grown 3. Inter-continental cooperation necessary to service world population	8. Take a field trip to a supermarket and have the manager speak to the class. The pupils can make a list of the types of foods and packaging materials that they noticed. 9. Visit a farm, dairy, and food processing plant. Report on how food is grown, harvested, and processed. 10. Make a map showing where certain types of foods are grown in the United States. Given reasons why they are grown in those areas. 11. List foods imported and exported by the United States.	*Posters* *Get Your A for Health.* United States Department of Agriculture. *Make Lunch Count.* New England Dairy and Food Council.
Food habits vary in geographic sections of the United States. 1. Influenced by ethnic origin 2. Influenced by environment	1. Have the pupils report on regional foods. If possible, have a tasting party, serving such things as Southern style corn bread, New York style clam chowder, and chili. 2. Have the pupils discuss how climate relates to food eaten.	*Books* American Home Economics Association. *Family Holidays Around the World.* Lowenberg, Miriam E., *et al. Food and Man.*
Food habits are different in other countries.		

Concepts and Primary Concerns	Sample Learning Experience	Resources
1. Influenced by religion 2. Influenced by ethnic groups	3. Have the pupils report on food customs of other countries and the possible reasons for such customs.	*Film* *The Big Dinner Table.* (Teacher's Guide) New England Dairy and Food Council.
	4. Have the pupils develop posters, a scrapbook of pictures, or stories of foreign foods.	*Pamphlet*
	5. Have the pupils prepare some foreign foods and serve them to parents at a school open house.	"What Did You Have for Breakfast This Morning?" (Teacher's Guide) New England Dairy and Food Council.

Area II MENTAL AND SOCIAL HEALTH

Field of Study ALCOHOL (Middle Grades)

Objectives

To help the pupil to:

1. Become aware of the fact that the use of alcohol is traditional.
2. Understand why some people drink alcohol and others abstain.
3. Develop an understanding of the differences in the terms *abstinence, drinking,* and *drunkeness.*
4. Understand current, factual information about alcohol.

*5. Appreciate that there are various psychological aspects involved with the excessive use of alcohol.

6. Understand the responsibilities and consequences related to alcohol use.
7. Develop an awareness of the influences in their lives which affect their decision-making about alcohol.

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* See sections on Emotional Development and Drugs.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Alcoholic beverages have been used by man for many centuries. 1. Early man a. Stone age b. Moslems c. Greco-Roman culture 2. Middle Ages a. Ages of chivalry b. Crusades c. Early traffic (France, Spain, Italy) 3. Present day a. Early (England and New England) b. Prohibition and repeal of prohibition c. Economic implications (taxes and expense to individual)	1. Have committees study the different periods of history as outlined and learn about the use of alcohol in each period. Under *early present day* be sure that they include the triangle trade of New England and the economic dependence of England on the liquor trade. 2. Have the pupils study how alcohol is made and compare ancient and modern methods of manufacture. 3. Have children collect materials and information about alcohol which relates to different historical periods. 4. Make bulletin board displays with pictures from these various historical periods. 5. Have the pupils do research and write compositions on how alcohol was used in the various historical periods.	*Books* Lucia, Salvatore P. *Alcohol and Civilization.* Roveche, Berton. *Alcohol: Its History, Folklore and Its Effect on the Human Body.* *Journal* *Journal of Alcohol Education.* Winter, 1968. Licensed Beverage Industries, Inc. *Pamphlets* "Alcohol and Alcoholism." United States Department of Health, Education and Welfare. "Alcoholism in Massachusetts." Massachusetts Department of Public Health. "Alcohol Education Reevaluated." National Association of Secondary School Principals. "It's Best to Know About Alcohol." National Alcoholic Beverage Control Association, Inc. "Report on Alcoholism." Massachusetts Department of Public Health.
The decision to drink alcoholic beverages or to abstain should be based upon knowledge and rational judgment. 1. Reasons for drinking a. Physical (1) Releases muscle tension (2) Acts as a sedative b. Social (1) Acceptance by peers (2) Symbol of adulthood	1. Have a panel discussion or debate, comparing past uses of alcohol with present uses of alcohol. 2. Have the pupils do research on the uses of alcohol for medicinal purposes. Compare present-day uses with past uses. 3. Have a doctor or nurse talk to the class on the use of alcohol. 4. Have a debate or panel discussion on the	*Books* Bauer, W.W., *et al. Health for All* (4-6). Byrd, Oliver E., *et al. Helath* (4-6). Fittman, D.J. *Alcoholism.* Irwin, Leslie W., *et al. Dimensions in Health Series: Choosing Your Goals. Finding Your Way. Understanding Your Needs.* Keller, Mark, and McCormack, Mairi. *A Dictionary*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
(3) Conformance to mores of a group with prestige c. Emotional (1) Escape from reality (2) Feeling of temporary stimulation (3) Feeling of relaxation d. Medicinal (1) Anesthetic (2) Tranquilizer for convalescents and the aged (3) Analgesic 2. Degrees of drinking a. Total abstinence (1) Religious reasons (2) Economic reasons (3) Health b. Drinking (1) Social (2) Religious (3) Medicinal c. Drunkeness (temporary loss of control over reactions and behavior) d. Alcoholism (1) Chronic disease (2) Injurious to health and social and economic functions (3) Progressive if left untreated (4) Can be fatal	beneficial uses of alcohol as opposed to the abuse of alcohol. 5. Have students relate what they think alcohol does to the human body and contrast this with factual data. 6. Make a chart showing the different alcoholic beverages. 7. Make graphs showing the correlation between the amount of alcohol in the blood and the stages of inebriation (total abstinence to drunkeness). 8. Have the pupils interview a doctor, nurse, coach, or guidance counselor concerning the effects of alcohol on a person (mentally, physically, morally). They can report their findings to the class. 9. Have the students look up and discuss the definitions of the terms *alcohol, alcoholism, alcoholic,* and *intoxication.*	*of Words About Alcohol.* McCarthy, Raymond G. *Facts About Alcohol.* *Filmstrips* *Alcohol – Chemistry and Uses.* Eye-Gate House, Inc. *Alcohol and You.* McGraw-Hill Book Company. *Packet* *Take a Sober Look at Drinking.* Washington State Liquor Control Board. *Pamphlet* "Planning for Alcohol Education." Licensed Beverage Industries, Inc. *Tapes* *The Choice Is Yours.* Educational Progress Corp. *Transparencies* *Acceptable Ceremonial and Religious Drinking.* D.C.A. Educational Products, Inc. *Alcohol: Industrial and Medical Uses.* D.C.A. Educational Products, Inc. *Reasons People Drink.* D.C.A. Educational Products, Inc.
Alcoholic beverages have various effects upon the person. 1. Effects upon the body organs a. Brain (1) Depressant (2) Loss of muscular coordination (3) Movement	1. Construct a chart pointing out the beneficial aspects of alcohol on the body as opposed to the harmful effects. 2. Draw a diagram of the human body and color the areas which are particularly affected by alcohol consumption. Name these areas and tell what damage might result from the excessive	*Books* Carroll, Charles R. *Alcohol: Use, Nonuse and Abuse.* Chafetz, Morris E. *Liquor, the Servant of Man.* McCarthy, Raymond G. *Alcohol Education for Classroom and Community.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
(4) Speech (5) Breathing b. Heart (blood pressure) c. Kidneys (increased activity) d. Stomach (varies appetite) e. Liver (cirrhosis, resulting from prolonged, heavy drinking) f. Eyes (reduction of acuity) g. Ears (reduction of acuity) 2. Physical effects a. Loss of body heat b. Decrease of fine skills c. Talkative and noisy d. Belligerent e. Unsteadiness in standing, walking f. Abnormality of gross body functions g. Unconsciousness h. Death 3. Social effects a. Gregariousness, moroseness b. Alcoholism c. Ostracism from peer group d. Broken homes 4. Emotional effects a. Mental stress b. Loss of memory c. Impaired function d. Less concern with minor irritations and restraints e. Exaggerated emotions and behavior 5. Medicinal effects (lessens pain)	use of alcohol. 3. Ask a pharmacist to explain to the pupils the difference between rubbing alcohol and beverage alcohol. 4. Have the pupils list the uses of rubbing alcohol. 5. Have the pupils calculate how much of the cost of a bottle of liquor is tax (state and federal). Have them find out who gets this tax money and how it is spent. 6. Have the pupils ascertain the areas of greatest alcohol consumption in the United States (rural, urban, north, south, east, west). Let them suggest reasons for the distribution. 7. Have the pupils compute the number of man hours lost in the country due to excessive drinking (in a day, a week, a year). 8. Have the pupils compute the total cost of liquor consumed in the United States and compare it with the total cost of education. 9. Discuss the terms *mental stress, irritability,* and *depression.* 10. Discuss factors which contribute to the development of these states in adults and teen-agers. 11. Have pupils interview adults and teen-agers and report on the reasons given for drinking. Evaluate the reasons.	McCarthy, Raymond G. *Exploring Alcohol Questions.* *Film* *Any Boy-USA.* National Women's Christian Temperance Union. *Filmstrips* *Alcohol and Your Health.* Society for Visual Education. *The Effects of Alcohol.* Eye-Gate House, Inc. *Pamphlets* "The City America Could Build." Alcohol Problems Association. "It's Best to Know." National Alcoholic Beverage Control Association. "What the Body Does with Alcohol." Rutgers Center of Alcohol Studies. *Transparencies* *Alcohol: Effect on the Body.* D.C.A. Educational Products, Inc.
Alcohol can change one's behavior. *	1. Investigate the hospitalization and care of heavy drinkers.	*Pamphlets* "Manual on Alcoholism." American Medical Association.

*See Emotional Development and Drug Sections.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
1. Immediate effects a. Stimulation b. False courage c. Depression d. Forgetfulness 2. Long-range effects a. Dependence on alcohol b. Loss of self-respect, family, and integrity		*Transparencies* *Alcohol Effects Personality.* D.C.A. Educational Products, Inc.
The decision to drink involves legal and social obligations. 1. Driving (control, reaction time, judgment) 2. Deportment (loss of inhibitions and moral values) 3. Laws (local, state, federal)	1. Have the pupils collect newspaper stories of automobile accidents caused by drinking. 2. Have the pupils check on court cases resulting from drinking. 3. Discuss the penalties for driving under the influence of liquor. 4. Contact the Registry of Motor Vehicles, the local police department, or an insurance company and arrange for a representative to speak to the pupils regarding the dangers of drinking and driving. 5. Discuss the obligations which accompany the decision to drink when a person becomes of age. 6. Have the pupils write a paper on why a pilot should not drink before flying an airplane. 7. Have the pupils write a paper telling why an individual should not drink and drive.	*Article* "Drinking and Driving: New Approaches." *Today's Health.* March, 1968. *Book* Willgoose, Carl E. *Health Education in the Elementary School.* *Film* *Public Enemy No. 1.* National Women's Christian Temperance Union. *Pamphlets* "Alcohol and Alcoholism." National Institute of Mental Health. "The Way to Go." Kemper Insurance Company. "The New Law on Drinking and Driving." Registry of Motor Vehicles.

Field of Study DRUGS (Middle Grades)

Objectives

To help the pupil to:

1. Develop an understanding of the historical background of drugs.
2. Acquire a healthy respect for drugs and their tremendous value to mankind when used correctly.
3. Comprehend the possible physical, mental, and moral dangers involved in the use of drugs.
*4. Become acquainted with the various environmental factors which could easily influence an individual's decisions with regard to drug use and/or abuse.
5. Appreciate the national and state laws regarding the distribution and use of drugs.
6. Realize the effects of drugs on the body, and acquire a basis upon which to build decision-making abilities.

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* See section on Emotional Development.

DRUGS (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The use of drugs has made a valuable contribution to the historical development of man. 1. Asia (China) a. Used as a medication b. Opium War (cause and results) 2. India, Turkey (medical and religious uses through the ages) 3. Africa (South Africa, Egypt) 4. North America (United States, Mexico) 5. South America 6. Europe (England, France) 7. Greco-Roman	1. Form committees of pupils to do research on the history of drugs in each of the countries mentioned. Have a member of each committee report on what his committee has learned. 2. Have the pupils dramatize what they have found out concerning the history of drugs in the various countries. 3. Make bulletin board displays of drugs which early man used and drugs of today. 4. Assign individuals to do research and report on such men in the drug field as Alexander Flemming and William Norton. 5. Trace the history and development of a modern day drug from ritual or tribal usage to modern medical applications (heroin, morphine, etc.). 6. Have the pupils do research on poisonous plants such as mushrooms.	*Books* American School Health Association. *Teaching About Drugs.* Modell, Walter, and Lansing, Alfred. *Drugs.* Hyde, Margaret. *Mind Drugs.* Read, Donald. *Drugs and People.* *Filmstrip* *Narcotics: Background Information.* Eye-Gate House, Inc. *Pamphlets* "Current Issues in the Prevention and Control of Marijuana Abuse." United States Department of Health, Education and Welfare. "First Facts About Drugs." Food and Drug Administration. United States Department of Health, Education and Welfare. "The Use of the Cannabis Drugs in India." Chopra, I.C., and Chopra, R.N.
Modern drugs have a tremendous beneficial potential for mankind. However, abuse of these same drugs has caused them to become detrimental to the individual and to society. 1. Types of drugs a. Provided by nature b. Synthetic 2. Proper usage a. Prescribed by a physician b. Administered by a properly qualified person	1. Have a pharmacist describe the information on a doctor's prescription. 2. Collect magazine and newspaper advertisements which promote over-the-counter medicines and evaluate their claims. Make a bulletin board display of these advertisements. 3. Have the pupils make a chart, showing the differences between drugs and medicines that are sold over-the-counter and those which are sold by medical prescription only.	*Books* Byrd, Oliver E., *et al. Health (4-6).* Harms, E. *Drug Addiction in Youth.* Kitzinger, Angela, and Hill, Patricia. *Drug Abuse: Source Book and Guide for Teachers.* Lingeman, Richard. *Drugs From A to Z: A Dictionary.* *Pamphlets* "Drug Abuse: Escape to Nowhere." *National*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
c. Taken as prescribed with adult supervision d. Taken as directed on label 3. Hazardous use of drugs a. Self medication b. Overdosage c. For physical and mental stimulation d. Use of old or outdated drugs 4. Careless use of dangerous household substances (lye, carbona, cleaning materials etc.) 5. Proper storage, care, and disposal a. Medicine cabinet b. Proper labeling c. Proper disposal of antiquated prescriptions 6. Careful analysis of advertising claims a. Newspapers, magazines, and billboards b. Radio and TV	4. Invite a competent doctor, nurse, pharmacist, or psychologist to talk to the class on the wise use of drugs. 5. Have the pupils do research and give oral reports on the effects of drugs on the brain and nervous systems and the possible consequences on the total functions of the body. 6. Promote a discussion between the pupils and their parents on the substances (detergents, lye, insecticides, etc.) found in their home which could be potentially harmful to the human body. 7. Have the pupils display empty containers of dangerous household substances. 8. Invite a chemistry or biology teacher to talk to the class about the nature of household chemicals. 9. Make a tape recording of drug advertisements on radio and TV. Play back the tapes in the classroom and discuss how the advertisements are presented to appeal to the public. 10. Make posters depicting how advertisements attempt to influence the buyer. 11. Have the pupils make posters on how drugs help to improve one's health.	*Education Associaton.* "Drug Abuse: A Call for Action." American Social Health Association. "A Guide to Some Drugs Which are Subject to Abuse." American Social Health Association. "Narcotic and Harmful Drug Information." Massachusetts Department of Public Health. "Runningawayness." Food and Drug Administration. "What We Can Do About Drug Abuse." Food and Drug Administration.
Use of drugs produces various physical and behavioral changes in the body. 1. Personality changes a. Stimulants b. Depressants c. Hallucinogens d. Volatile solvents	1. Prepare a diagram of the blood stream, showing how substances entering the body by any means are carried throughout the body. 2. Invite a pharmacist to discuss the effects of different drugs on the body systems. 3. Use models or diagrams of the various body systems showing how substances not classified	*Filmstrips* *Control of Narcotics, Drugs and Health.* Eye-Gate House, Inc. *Drugs and the Nervous System.* Churchill Films. *Narcotics and You* (Parts 1 & 2). McGraw-Hill Book Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
e. Narcotics 2. Behavior changes a. Stimulants b. Depressants c. Hallucinogens d. Volatile solvents e. Narcotics 3. Nervous system effects a. Stimulants b. Depressants c. Hallucinogens d. Volatile solvents e. Narcotics 4. Digestive system effects a. Stimulants b. Depressants c. Hallucinogens d. Volatile solvents e. Narcotics 5. Coordination problems a. Stimulants b. Depressants c. Hallucinogens d. Volatile solvents e. Narcotics 6. Drug dependency a. Psychological b. Physical	as food reach the various body systems. 4. Develop a four-column chart giving: (1) Technical name of drug. (2) Slang name of drug. (3) Immediate result of use. (4) Long-range effect of use.	*Pamphlets* "A Doctor Discusses Narcotics and Drug Addiction." Budlong Press Company. "The Glue Sniffing Problem." American Social Health Association. "Questions and Answers on Barbiturates, Amphetamines, LSD, Marijuana, Narcotics." Narcotic Addiction Control Commission. *Transparencies* *Mood and Behavior Modifiers Common and Special Circumstances.* 3M Company. *Range of Mood and Behavior Modifiers.* 3M Company. *Various Controls on Mood and Behavior Modifiers.* 3M Company.
Laws restricting the use of drugs are provided by the federal and state governments for the protection of citizens. 1. Control of narcotics 2. Control of marijuana	1. Discuss with the class why laws are necessary. 2. Show the class how the state and federal governments are protecting the welfare of the citizens. 3. Present some of the enforcement problems that	*Pamphlets* "Federal and Massachusetts Drug Laws." Massachusetts Department of Education. "Narcotic and Harmful Drug Laws." Massachusetts Department of Education.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
3. Control of opium 4. Narcotic Manufacturing Act and Cosmetic Act 5. Drug Abuse Control Amendment	face officers in attempting to carry out the provisions of the laws.	"Prevention and Control of Narcotic Addiction." United States Government Printing Office.

Area II MENTAL AND SOCIAL HEALTH

Field of Study EMOTIONAL DEVELOPMENT (Middle Grades)

Objectives

To help the pupil to:

1. Begin to understand the importance and worth of each individual.
2. Recognize the relationships of physical growth and maturation to emotional development.
3. Explore the significance of environment upon emotional development.
4. Become aware of the interrelationships that exist among physical, social, intellectual, and emotional developments.

EMOTIONAL DEVELOPMENT (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Each individual is a unique human being. 1. Appearance and name 2. Abilities and talents 3. Feelings and emotions a. Identification b. Function (for and against the individual) c. Examples (1) Love (2) Anger (3) Fear (4) Shame 4. Values a. Where they come from b. How they function c. How they differ 5. Conscience a. Where it comes from b. How it functions c. Gray areas	1. Develop the idea of the uniqueness of the individual, using the "Peanuts" gang or similar cartoon as a basis for discussion. 2. Discuss the appearance, ability, and values of favorite TV or book characters. 3. Have the pupils use mirrors to study facial expressions. Make two lists – what one can see on the surface and what may be underneath. 4. Have the pupils dramatize crises of conscience.	*Books* American Guidance Service, Inc. *The People Around Us* (5). Byrd, Oliver E., *et al. Health* (4-6). Ryler, Ruth, *et al. Teach Us What We Want to Know.* Staff of National Foundation for American Education. *Seeing Ourselves.* (6) Sylvester, Robert. *Common Sense in Classroom Relations.* *Monograph* *The Protection and Promotion of Mental Health in Schools.* United States Department of Health, Education and Welfare. *Special Supplement* "Mental Health in the Classroom." *The Journal of School Health.* May, 1968.
Growing up involves gradually assuming responsibility for oneself. 1. Dependence and independence (balance between the two – end result of maturation) 2. Decision-making 3. Responsibility for actions	1. Show and discuss the film *Growing Up.* 2. Have the pupils role play situations where decision-making is involved and where the assumption of responsibility is involved.	*Film* *Growing Up.* Coronet Films. *Filmstrip* *Promises Are Made to Keep.* Encyclopaedia Britannica Educational Corp.
A positive self image is basic for healthy emotional development and happiness. 1. Self-perception a. Ups and downs in life are normal b. Self-image varies from person to person	1. Have each pupil think of the person he most admires. Then list on the board characteristics which the children like in a person and those which they do not like. 2. Ask each child to write his autobiography or	*Books* Bruck, Charlotte Marie, and Vogelsong, Marguerite O. *Build* (5). Bruck, Charlotte Marie, and Vogelsong, Marguerite

Concepts and Primary Concerns	Sample Learning Experiences	Resources
2. Why people do things a. Motivation b. Drive and initiative c. Role of frustration (defensiveness) d. External influences 3. Normal physical growth a. Outward changes to be understood and accepted (1) Size and shape (2) "Looks" (sexuality) (3) Skill development b. Reason for change (puberty)	plan a booklet called "All About Me." 3. Have the pupils draw or collect pictures of activities a person can enjoy by himself. 4. Invite a doctor and nurse to discuss normal physical growth and development from a factual point of view, stressing the areas that may cause anxiety.	O. *Search* (6). Freud, Anna. *Psychoanalysis for Teachers and Parents.* Gesell, Arnold, and Ilg, Frances. *Child from Five to Ten.* Ginott, Haim G. *Between Parent and Child.* *Films* *Looking at Children.* Metropolitan Life Insurance Company. *Pamphlet* "Emotional Problems of Illness." Science Research Associates.
Serious physical problems must be recognized and accepted by the individual and his peers. 1. Noticeable physical problems a. Vision (glasses) b. Hearing (hearing aids) c. Manipulation and gait problems (cogenital development) d. Epilepsy (other similar problems) 2. Physical problems felt inwardly a. Hearing and vision b. Heart-lung-circulation c. Brain damage 3. Retardation a. Causes b. Severity (mild-severe) c. Treatment 4. Mental and emotional problems a. Psychosis b. Neurosis	1. Have each pupil report on the life of a physically handicapped person. 2. To help the children build empathy, have them role play being handicapped. Examples: Pretend you are blind. Pretend you have just found out you must wear a hearing aid. Pretend that your doctor has just said you cannot take physical education. 3. Have the pupils exchange letters with children in a hospital school such as Canton. 4. Interview the teacher of homebound pupils. Ask about their feelings and hopes. 5. Discuss retardation, possible causes, methods of evaluating, and means of coping with the problems. 6. Invite the teacher of an educable class to talk with the class.	*Books* American Guidance Service, Inc. *Seeing Ourselves* (6). Byrd, Oliver E., *et al. Health* (4-6). Freud, Anna. *Psychoanalysis for Teachers and Parents.* Piaget, Jean. *Construction of Reality in the Child.* Smith, Bert Kruger. *No Language but a Cry.* *Film* *What to Do About Upset Feelings.* Coronet Films. *Pamphlet* "Emotional Problems of Illness." Science Research Associates.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
c. Exaggeration of difficulties d. Available assistance	7. Invite representatives of local agencies to discuss how they help citizens cope with problems.	
Emotional reactions based on fear, anxiety, tension, or excitement may trigger physical reactions. 1. Common signs a. Blushing b. Paleness c. Perspiration d. Weakness e. Headache f. Stomach upset g. Unusual strength 2. Dealing with emotions	8. List the physical reactions that may arise from emotions. 9. Act out physical reactions to situations such as: (1) A test at school (2) Being at bat – two outs (3) Giving an oral report (4) Walking in the dark (5) A bully taking a possession (6) Meeting a new boy or girl	
Parents, siblings, relatives, friends, teachers, neighbors, and others influence the emotional development of each child. 1. Home influence a. Role of parents (1) Love and acceptance (2) Self-models, manners (3) Discipline (4) Rights within a family value system b. Role of siblings (1) Status of age, or lack of it (2) Support (3) Conflict c. Role of relatives (living in home) 2. Peer influence a. Friends (1) Making and keeping friends (2) Good manners b. Peer conflicts and solutions (1) Scapegoating	1. Have the pupils write a script about a family situation concerning siblings, and present it to the rest of the class. 2. Dramatize a story about family conflicts. 3. Invite some parents to speak to the class on what actions they expect from children and what actions they expect children to avoid. 4. Have children write about "How I Help My Family." 5. Discuss ways of making a new pupil feel welcome at school and ways he can be helped to make new friends. 6. Role play the following situations where manners are used: (1) How to act at a party (2) How to act at a sports event (3) Telephone etiquette 7. Role play a situation where compromise is used.	*Books* Irwin, Leslie W., *et al. Dimensions in Health Series: Finding Your Way, Choosing Your Goals, Understanding Your Needs.* Jenkins, Gladys Gardner, *et al. These Are Your Children.* Los Angeles County Board of Education. *Guiding Today's Children.* National Institute of Mental Health. *Mental Health of Children.* Sugarman, Daniel A., and Hochstein, Rolaine. *Seven Stories for Growth.* *Films* *Good Sportsmanship.* Coronet Films. *You and Your Family, and You and Your Friends.* Associated Films, Inc.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
(2) Isolation (3) Decision making (4) Compromising c. Reputation versus behavior	8. Show and discuss the filmstrip *Working and Playing Together.* 9. Show and discuss the film *Good Sportsmanship.*	*Filmstrip* *Working and Playing Together.* McGraw-Hill Book Company.
3. Group influence a. Organized sets (Scouts, etc.) b. Informal gangs (1) Dependence (2) Independence c. Good leader d. Good follower	10. Organize a class club and elect officers. 11. Have the pupils report on some leader, showing the qualities that make him or her oustanding.	
4. Societal influence a. School and teacher (1) Relationships (2) Demands of the curriculum (3) Transition to Junior High b. Mass Media (1) TV (2) Movies (3) Newspapers, magazines (4) Books c. Cultural variations – prejudice learned and fostered between and among (1) Peers (2) Generations (3) Neighborhoods	12. Make a collage of favorite TV program notes, movie listings, newspaper articles, magazines, book titles or book jackets for a bulletin board display, entitled "What We Like and Why." Show the why by superimposing descriptive words over the pictures and prints. 13. Invite an anthropology student or history professor from a local university to discuss another cultural group and tell how the children in this group behave. 14. Have the pupils visit a local museum or library to find examples of games that children play in other lands. Discuss how these games help in emotional growth.	
Environmental influences may differ, may be lacking, or may conflict.	1. Invite a child from a different racial or geographical background to spend a day with the class. 2. Exchange visits with children in another school. 3. Ask the pupils to list problems common to their age group. Have a panel discussion on these problems and try to reach some solutions.	*Book* Friedenberg, Edgar Z. *The Dignity of Youth and Other Atavisms.* *Filmstrip* *Getting Acquainted.* McGraw-Hill Book Company.

Area II MENTAL AND SOCIAL HEALTH

Field of Study TOBACCO (Middle Grades)

Objectives

To help the pupil to:

1. Understand the history of the use of tobacco and its culture here and abroad.
2. Become aware of the effects of smoking on his health and appearance.
3. Comprehend that smoking is economically unsound for the individual.
4. Understand that one does not have to smoke to be socially accepted by peers.

TOBACCO (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The use of tobacco has historical significance socially and economically. 1. Use by Indians in America 2. Introduction to Europe 3. Early growth 4. Present growth 5. Economic impact a. Present use b. Export c. Federal and state taxes	1. Have committee reports on the early use of tobacco in this country and other countries. 2. Have the pupils make displays of the different ways that tobacco is used in different countries. 3. Have the pupils study the difference in tobacco grown in this country and that grown in other lands. 4. Hold a debate or panel discussion on how early tobacco growers in this country depleted the land. 5. Discuss tobacco growing in the Connecticut River Valley and its economic impact on this region. Find out if other use can be made of this land. 6. On a map of the world and/or the United States, indicate by the use of color the tobacco-growing regions. 7. Discuss the amount of tax on each package of cigarettes (federal and state) and relate it to the economy of the country. 8. Have the pupils build resource units and keep them in the resource center of the school to be used and added to yearly.	*Books* *Collier's Encyclopedia.* Vol. 22. *Compton's Pictorial Encyclopedia.* Vol. 14. *Encyclopaedia Britannica, Jr. for Boys and Girls.* Vol. 14. *Encyclopedia Americana.* Vol. 26. *Our Wonderful World.* Vol. 1. *World Book Encyclopedia.* Vol. 18. *Film* *Smoking: Past and Present.* Local Cancer Society. *Filmstrip* *Tobacco – Historic Background.* Eye-Gate House, Inc. *Idea Kit* Massachusetts Inter-Agency Council on Smoking and Health.
Current research is controversial in respect to its findings concerning the detrimental effects of tobacco. 1. Findings supporting detrimental effects a. Identification of some key substances in tobacco smoke b. Parts of the body effected (1) Respiratory system (2) Cardio-vascular system	1. Have the pupils make a graph showing the relationship between the increase in smoking and lung cancer. 2. Have the pupils draw a diagram of the human body and color in the various areas that might contain nicotine residue. 3. Have the pupils discuss smoking facts with their parents.	*Books* American Association of Health, Physical Education and Recreation. *Health Concepts, Guide for Health Instruction.* Bauer, W.W., *et al. Health for All* (4-6). Byrd, Oliver E., *et al. Health.* (5-6)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
(3) Digestive system (4) Nervous system (5) Skin c. Effects on physical efficiency d. Effects on life expectancy e. Research findings (1) Cancer (2) Heart problems (3) Circulatory problems (4) Emphysema 2. Findings challenging detrimental effects	4. Make a collage of cigarette packages showing the "May be Hazardous to Health" label on each one. 5. Allow a cigarette to burn on a glass dish. Have the pupils observe the tar residue. 6. Demonstrate the "Smoking Machine." 7. Use a torso model and charts to study the physiology of the body systems affected by smoking. 8. Have the pupils make posters showing the effect of smoke on areas of the body. 9. Show slides of cancerous and normal cells. 10. Prepare a TV commercial, giving scientific facts on smoking and the effect on the body systems.	*Pamphlets* "I'll Choose the High Road." Local Cancer Society. "Questions and Answers to Cigarette Smoking." Local Tuberculosis Association. "Smoke Cigarettes? Why?" Local Cancer Society. "Smoking and Health Experiments." National Clearinghouse for Smoking and Health. United States Public Health Service. "Where There Is Smoke." Local Cancer Society. *Teaching Aid* *Mechanical Smoker.* Winston Products for Education.
Smoking involves many economic factors. 1. In early times 2. Present cost to industry 3. Federal and state tax revenue 4. Wasting money from the family budget 5. Fires as a result of smoking (loss of life and property)	1. Have the class compute the expense of smoking one package of cigarettes per day for 40 years. Then have them list the things that they want and could buy with that money. 2. Discuss the amount of money that is spent per day in the local community on smoking and how the money could be spent more effectively. 3. Collect and categorize news articles about fires caused by careless smokers. Make a bulletin board display of the material.	*Pamphlets* "Answering the Most Often Asked Questions About Cigarette Smoking and Lung Cancer." Local Cancer Society. "Best Tip Yet – Don't Start." Local Cancer Society. "Effects of Smoking." Local Cancer Society. *Transparencies* *Smoking Level.* D.C.A. Educational Products, Inc.
Smoking involves numerous social factors. 1. Individual appearance a. Stained teeth b. Discoloration of fingers and nails c. Bad breath	1. Have the pupils discuss pipe, cigar, and cigarette smoking. Point out the possible harm in each. 2. Discuss with the students the effect that smoking has on the breath.	*Experiments* *Smoking Experiments.* Local Cancer Society *Exhibits* *To Smoke or Not to Smoke.* Local Cancer Society.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
d. Odor on clothes 2. Effect upon others a. Develops an undesirable environment for non-smokers b. Encourages others to smoke	3. List common courtesies that some smokers ignore. 4. Invite a dental hygienist to discuss the effect of smoking on oral hygiene. 5. Have the pupils survey the community to determine where "No Smoking" signs are located. Have them discuss the reasons for the signs in those areas. 6. Have the pupils notice people who smoke in "No Smoking" areas. Have them record the incidents and discuss them at a later date.	*Film* *Point of View.* Local Tuberculosis and Respiratory Disease Association. *Filmstrips* *I'll Choose the High Road.* Local Cancer Society. *Is Smoking Worth It?* Local Cancer Society. *Huffless, Puffless Dragon.* Local Cancer Society. *Tobacco and Health.* Eye-Gate House, Inc. *Tobacco – Report of the United States Surgeon General's Advisory Committee.* Eye-Gate House, Inc. *Tobacco – Statistics and Chemistry.* Eye-Gate House, Inc. *Poster* *Congress Has Acted – Now It's Up to You.* Local Cancer Society.
To smoke or not to smoke becomes a personal decision for each individual. 1. Influences that motivate individuals to begin smoking a. Family (parents, older sisters and brothers) b. Personal experiences (1) Striving for maturity (2) Curiosity (3) Defiance of adult rules and regulations (4) Peer group (5) Advertising (entertainers, adult leaders, athletes)	1. Have the pupils list the advantages and disadvantages of smoking. Have them make comparison charts and take them home to their parents. 2. Inaugurate a school "No-Smoking" campaign. 3. Prepare a display of newspaper and magazine articles showing the harmful effects of smoking. Include articles about fires caused from careless smoking. 4. Have the children obtain information on state laws which relate to smoking. 5. Have the pupils role play an experience in which classmates pressure a pupil to smoke with them.	*Article* "What the Cigarette Commercials Don't Show." Local Cancer Society. *Books* Curtis, Lindsay. *Smoking or Health.* Public Health Service. United States Department of Health, Education and Welfare. *The Health Consequences of Smoking.* *Pamphlet* "What to Tell Your Parents About Smoking." Local Heart Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
2. Influences that motivate individuals not to smoke a. Example of adults b. Peer influence c. Respect for the law d. Respect for one's body e. Strength of character f. Advertising (1) Cancer and Heart Association (2) Respiratory and Disease Association g. Athletics	6. Have each pupil compile a list of his friends and relatives and conduct a survey on their attitudes toward smoking.	*Transparencies* *Substances that Modify Mood and Behavior.* 3M Company.

Area III CONSUMER AND ENVIRONMENTAL HEALTH

Field of Study CONSUMER HEALTH (Middle Grades)

Objectives

To help the pupil to:

1. Understand the individual's role and responsibility as a consumer of health products.
2. Develop an awareness of the problems that tend to prevent wise consumer choices.
3. Use discriminating judgment in the selection of health products and services.
4. Understand the importance of carefully spending the health dollar.

CONSUMER HEALTH (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The health consumer has a variety of needs. 1. Health consumer buys or uses a. Health services b. Health facilities c. Health products 2. Responsible health consumer a. Seeks the best services b. Demands conservative prices c. Expects good quality in services and products	1. Discuss the kinds of health services used by different families. 2. Have the pupils consult newspapers for comparative price lists and bring them to class for discussion. 3. Have the pupils prepare individual or group reports on consumer health articles or products found in magazines.	*Book* Trump, Fred. *Buyer Beware.*
The consumer of health products is constantly faced with making decisions. 1. Drugs and medicines* a. Prescription medicines b. Non-prescription medicines (1) Examination of labels (2) Limitations of labeling 2. Health foods 3. Equipment and devices a. Legitimate b. Harmful or useless 4. Cosmetics and other substances 5. Health Services a. Seeking assistance from medical doctors (1) Family doctors (2) Allergist (3) Dermatologist (4) Opthamologist (5) Pediatrician (6) Psychiatrist	1. Have the pupils identify over-the-counter preparations such as cough drops, aspirins, and cold tablets, which may be harmful if taken over an extended period of time. 2. Define or distinguish between the terms *fortified, enriched, homogenized,* and *additives.* 3. Display pictures of gadgets and devices sold by quacks. 4. Have a child find the name of a medical specialist in the telephone book. Invite the specialist to visit with the class or arrange for a child to visit and interview the specialist and report to the class. 5. Discuss eyeglasses and the importance of having a qualified person prescribe them. 6. Have a committee study the non-medical specialists and report to the class. 7. Discuss the meaning of M.D. and other uses of the title of *doctor.* 8. Discuss some of the common physical problems	*Articles* "Do Cold Cures Really Work!" *Today's Health.* January, 1961. "Doctors Who Helped Win the West." *Today's Health.* September, 1964. "Granny Had a Cure for Everything." *Today's Health.* May, 1963. "How the Guidance Quacks Work on Your Worries." *Today's Health.* December, 1961. "The Iron Curtain of Superstition." *Today's Health.* April, 1961. "Quactitioners in the Old West." *Today's Health.* November, 1964. *Books* Coy, H. *Doctors and What They Do.* Sutherland, L. *Magic Bullets.* *Films* *Choosing a Doctor.* McGraw-Hill Book Company.

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*See section on Drugs.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
b. Seeking assistance from non-medical specialist (1) Optometrist (2) Optician (3) Clinical psychologist (4) Chiropractor (5) Pharmacist c. Seeking dental care (1) Dentist (2) Hygienist (3) Orthodontist d. Other non-medical personnel e. Medical quacks 6. Special problems of health consumers a. Deciding to seek the services of a physician b. Self-medication (hazards of treating oneself) 7. Fallacies about health products a. Health fads b. Superstitions c. Nostrums	at this age and when to seek the services of a physician. 9. Discuss the dangers of self-diagnosis and self-medication. 10. Make a notebook of health superstitions. Compare the superstitions with the scientific facts available today. 11. Bring in pictures of exercising devices, weight losing gimmicks, etc., and discuss their uses and misuses. 12. Discuss old "medical" practices used in earlier times to prevent disease (onions worn around the neck).	*Folks, Facts and Pharmacy.* Lederle Laboratories. *I Have a Secret Cure for Cancer.* Cancer Society. *Quacks and Nostrums.* McGraw-Hill Book Company. *Science and Superstition.* Coronet Films. *Your Friend the Doctor.* Coronet Films. *Pamphlets* "Food Faddism and False Claims." American Medical Association. "Vitamin Supplements and Their Correct Use." American Medical Association. "Ways to Keep Well and Happy." Local Tuberculosis Association. "Your Health and Recreation Dollar." Money Management Institute *Transparencies* *Comparing Health Choices.* 3M Company. *The Dentist.* 3M Company *Hazards of Self Diagnosis.* 3M Company. *The Pharmacist.* 3M Company. *The Physician.* 3M Company. *Professional Health Specialist.* 3M Company.
The young buyer must spend his money wisely. 1. Making the most of the health dollar (knowing before buying) 2. Assuming responsibility for one's own health 3. Utilizing public health services a. Rabies clinic	1. Discuss the percentage of the dollar spent on medical and health products. 2. Have the pupils compare the prices of the same products obtained in different stores. 3. Discuss the various types of medical services which are provided by the local health department for members of the community.	*Article* "Consumer Education for the Young Buyer." *Today's Health.* March, 1967. *Book* Willgoose, Carl E. *Health Education in the Elementary School.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
b. Measles clinic c. Eye examinations d. Chest X-rays e. Dental care	Discuss how these services can be effectively used by community members and how they are often abused.	*Filmstrip* *Dollars for Health.* Institute on Life Insurance *Transparencies* *Consumer Protection Sources.* 3M Company.
4. Having knowledge of school health and accident insurance	4. Have the class discuss the school health and accident insurance and its purpose. 5. Stimulate discussion on the budget make-up of the local health board.	
Health advertisements and promotions have a marked influence on buying habits. 1. Purposes of advertising a. Increase consumer demand for certain products b. Reach the consumer (brainwashing) 2. Responsibility of advertising a. Making truthful claims b. Presenting messages in good taste c. Presenting accurate facts 3. Irresponsible techniques of advertising a. Reach the emotions rather than reason b. Present inaccurate facts (1) Misleading claims and statements (2) Incorrect word usage to confuse the buyer (3) Testimonials (4) Gurantees c. Deceptive packaging d. Exploitation of special groups (1) Children (2) Teen-agers (3) Housewives	1. Have pupils make a guide for evaluating health advertising. Have them re-evaluate their guide several months later. 2. Bring in a health product and have the pupils discuss the label and decide whether or not it is worth purchasing. 3. Make some tape recordings of radio and TV commercials relating to children's health. Have the pupils discuss the tapes. 4. Have the pupils make a bulletin board display of advertisements which they have collected, showing how advertisements attempt to play on the emotions. 5. Have the pupils discuss the points to consider in reaching a decision to purchase various products. Consider the following: (1) Quality of the product. (2) Comparable price of similar items. (3) The safety of the product. (4) Accuracy of statements. (5) Need for the product. (6) Conservative advertising. 6. Display advertisements aimed at specific age levels. 7. Invite the advertising editor of a local newspaper to speak to the class about criteria	*Film* *The Meanest Crime.* Food and Drug Administration. *Pamphlet* "Bait Ads that Hook Your Dollars." Better Business Bureau. "Facts You Should Know About Your Better Business Bureau." Better Business Bureau. *Transparencies* *Influence on Health Choices.* 3M Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	for accepting health products and health service advertising.	
Many health agencies and organizations are working to protect the health dollar. 1. Local Better Business Bureau 2. State agencies 3. Federal agencies	1. Invite a representative from the local Better Business Bureau to discuss the role of the organization in the community. 2. Have the pupils set up their own set of rules which they believe all merchants, advertisers, etc., should be compelled to follow. Discuss the feasibility of each rule. 3. Compile a list of community sources where reliable and accurate health information can be obtained. 4. Visit a Food and Drug Administration Laboratory if there is one in the vicinity.	*Book* Neal, Harry. *The Protectors – The Story of The Food and Drug Administration.* *Pamphlet* "Consumer's Union Special Publications." Consumer's Union of the United States.

Area IV **SAFE LIVING**

Field of Study SAFETY (Middle Grades)

Objectives

To help the pupil to:

1. Develop an awareness of hazards.
2. Develop the ability to deal with situations in the environment that are potentially dangerous.
3. Understand that safety precautions and procedures are the responsibility of everyone.
4. Realize that most accidents are the result of carelessness and/or preoccupation or emotional stress.
5. Develop an appreciation of the importance of safe living in a changing environment.

SAFETY (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Since hazards lurk everywhere, the important thing is to recognize and correct them. 1. Home safety a. Fires b. Burns c. Critical areas 2. School safety (to and from) a. Riding b. Walking 3. Community safety 4. Recreation safety	1. Elect safety patrols to inspect various parts of the building. Have them report any safety hazards they might find and discuss ways in which these hazards may be eliminated or minimized. 2. Have the pupils draw a map of the routes they follow to and from school. They should note any hazards along the way. 3. List the areas in the home where hazards are easily overlooked. 4. Discuss hazards involved in talking or riding with strangers. 5. List sources of recreation that have hidden hazards (kite flying).	*Films* *Better Safe than Sorry.* McGraw-Hill Book Company. *Let's Be Safe at Home.* McGraw-Hill Book Company. *Pamphlets* "Helpful Hints on Bicycle Care." Bicycle Institute of America. "Safe at Home and in the Community." John Hancock Company. "When the Unexpected Happens." John Hancock Company. "Working for Safety." Massachusetts Safety Council.
The telephone is of vital importance in emergency situations. 1. Proper use a. Emergency telephone numbers conveniently located b. Assistance from operator (1) Provides information (2) Sends for help 2. Abuse a. Leaving off hook b. Using for useless calls	1. Invite a telephone supervisor to discuss such topics as how the operators handle emergencies and how they handle the problems that occur when children misuse the telephone. 2. Have the pupils list all the emergency numbers in their community (fire station, police station, hospital, ambulance, etc.). Post these numbers near the telephone. 3. Have the pupils role play an emergency situation, using a mock telephone. They should give the operator all the important information she needs to be of assistance.	*Books* Irwin, Leslie W., *et al. Dimensions in Health Series: Choosing Your Goals. Finding Your Way. Understanding Your Needs.* Stack, Herbert, and Elkow, J. Duke. *Education for Safe Living.* *Pamphlets* "Fire Safety Checklist." National Fire Protection Association. "Fire Safety Quiz." National Fire Protection Association.
Regulations are essential to pedestrian and vehicular traffic in preventing accidents.	1. Show and discuss the film, *The Day the Bicycles Disappeared.*	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
1. Bicycle safety 2. Pedestrian safety 3. Traffice safety	2. Have the pupils make posters showing safe bicycle riding. 3. Form a safe bicycle-riders club. 4. Invite a police officer to show a film and discuss bicycle safety. 5. Have a police officer demonstrate bicycle safety. 6. Arrange for the Registry of Motor Vehicles bicycle program.	*Fact Sheet* "Bicycle Accidents – Fact Sheet." Massachusetts Safety Council. *Film* *The Day the Bicycles Disappeared.* American Automobile Association. *Pamphlets* "Bicycle Regulations in the Community." Bicycle Institute of America. "Bikes and Boys and Girls." Kemper Insurance Company. "Teacher's Guide to Bicycle Safety Activities and Projects." American Automobile Association.
Observance of safety regulations can substantially reduce life and property losses due to fire. 1. Home (proper use of matches, volatile liquids, and flammable substances) 2. School (fire drills) 3. Community (false fire alarms) 4. Recreation (safety in various activities)	1. Have the pupils make art posters for each classroom at school. 2. Invite a fire officer to discuss general fire safety, fireworks, and the proper care and use of fire extinguishers. 3. Plan a home fire drill with the pupils. 4. Discuss the use of rope ladders. 5. Discuss how to make second-floor rooms in the home safer.	*Filmstrip* *Home Safety.* Young American Films, Inc. *Pamphlets* "Children's Fire Safety Lessons." Kemper Insurance Company. "How to Prevent Accidents in Your Home." National Research Bureau, Inc. "Matches." Massachusetts Safety Council. "The Traffic Safety Guides for Teachers." American Automobile Association.
Each individual has a responsibility for his own safety and the safety of others. 1. Personal safety a. Obeying safety rules	1. Write rules for using equipment and post them nearby or attach them to the equipment. 2. Show the film "School Bus Patrol." With the permission and cooperation of the administration, organize a school bus patrol.	*Book* Byrd, Oliver, E., *et al. Health.* (5-6).

Concepts and Primary Concerns	Sample Learning Experiences	Resources
b. Using and properly caring for equipment c. Behaving and obeying safety regulations on school bus and/or other transportation 2. Safety of others a. Home (storing personal belongings) b. School (safety patrols, councils) c. Community (properly disposing of hazardous litter) d. Recreation (using firearms, rollerskates with safety) e. School bus and/or other transportation (avoiding throwing missiles at moving vehicles)	3. Make a list of safety rules and illustrate them with posters. 4. Organize school safety patrols. 5. Have a policewoman or officer come to school to review safety rules necessary for the community. 6. Plan a field trip to a local recreation area. Look for safety hazards (broken glass, broken apparatus). 7. Make a list of safety rules for the school and playground.	*Films* *Be Water Wise.* Air Force Films. *Safety in the Summer.* Curriculum Films. *Playground Safety.* Coronet Films. *Pamphlets* "Passenger Safety in Public Carriers." Massachusetts Safety Council. "Play it Safe." Metropolitan Insurance Company. "Safety in Pupil Excursions." Massachusetts Safety Council. "School Bus Safety Rules." Massachusetts Safety Council. "School Pedestrian Safety." American Automobile Association. "The Young Pedestrian." American Automobile Association. "Educating Pupil Passengers." Massachusetts Safety Council. *Transparencies* *Safety Signs Along the Highway.* D.C.A. Educational Products, Inc.
A knowledge of safety rules and acquisition of safety habits are essential. 1. Home a. Proper use of (1) Electrical outlets, wiring (2) Waste materials (3) Plastic bags (4) Bathing facilities (5) Holiday decorations	1. Find magazine pictures to illustrate the importance of obeying safety rules. 2. Formulate rules for baby sitting with younger brothers and sisters. 3. Check the medicine cabinet at home to see that all bottles or containers are properly labeled. Keep medicines out of the reach of small children.	*Book* Thackstone, John and Newsom, W.T. *Child's Health and Physical Development Series* (4-6). *Filmstrips* *Safety at Christmas.* Young American Films, Inc. *Street Safety.* Young American Films, Inc.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
(6) Power equipment and tools b. Concern for (1) Storage of poisons (2) Leaving objects on stairs 2. School (proper use of gymnasium and science equipment) 3. Community (regard for laws for abandoned appliances, buildings, and building sites) 4. Recreation (respect for laws regarding water sports, fireworks)	4. Have the pupils find out the laws concerned with abandoned refrigerators. Discuss the dangers of playing in or near such objects. 5. Visit the local park or recreation area and ask the attendents the rules concerning use and maintenance of the swimming pool. 6. Ask a police officer to discuss with the class the dangers of fireworks and the law in Massachusetts concerning their purchase.	*Micro-Units* "Safety Signs on Our Streets." D.C.A. Educational Products, Inc. "Safety Signs Along the Highways." D.C.A. Educational Products, Inc. *Pamphlets* "Don't Give Fire a Place to Start." National Fire Prevention Association. "Flammable Liquids in the Home." Massachusetts Safety Council. "Matches." Massachusetts Safety Council. "Safety in the Gymnasium." Massachusetts Safety Council. "School Parties." Massachusetts Safety Council. "Swimming." Massachusetts Safety Council.

JUNIOR HIGH

Area I **PHYSICAL HEALTH**

Field of Study NUTRITION

Objectives

To help the student to:

1. Understand the importance of food in every stage of life.
2. Become aware of the influence of nutritional habits on personal growth and development.
3. Develop an understanding of the importance of handling food safely.

NUTRITION (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Individuals vary in their rate of physical development. 1. Heredity (contributes to determination of physical size) 2. Amounts and kinds of food (determinant of growth) 3. "Average" development (includes variety of body structures)	1. As a basis for class dialogue have each student write a brief physical self-description. Discuss the factors related to nutritional requirements and physical-growth rates of various age groups. 2. Initiate class discussion by showing pictures of people suffering from malnutrition (Appalachia, Biafra). 3. Some students may be interested in doing historical research on man's physical growth and development (Plimoth Plantation).	*Books* Bogert, L.J., *et al. Nutrition and Physical Fitness.* Clair, C. *Kitchen and Table – A Bedside History of Eating in the Western World.* Mickelsen, Olaf. *Nutrition, Science and You.* *Film* *Food for Life.* New England Dairy and Food Council. *Pamphlet* "Vitamins from Food." New England Dairy and Food Council.
Each stage of physical development requires the same nutrients in varying amounts. 1. Infants and young children (balanced diet including all basic nutrients) 2. Teen-agers (required nutrient needs greater than for children) 3. Adults a. Nutrients essential for maintenance of body structure b. Nutrients essential for repair of body cells c. Calorie intake reduced	1. To review intake of nutrients, have each student complete a 24-hour dietary intake chart. Examine the food against the criteria of the basic four. 2. Use Comparison Cards to illustrate quantity and quality of nutrients in common foods (milk versus cola or coffee). 3. List some popular snack foods. Evaluate these for their nutritive value. 4. Have a snack party, allowing the students to plan their own snacks and record them on recipe cards. Discuss the nutritive value of each snack. 5. On a given day, have the students evaluate the breakfast and/or lunch they have eaten.	*Book* McWilliams, M. *Nutrition for the Growing Years.* *Comparison Cards* New England Dairy and Food Council. *Films* *Exploring Your Growth.* New England Dairy and Food Council. *Food, Energy and You.* New England Dairy and Food Council. *Nutritional Needs of Our Bodies.* New England Dairy and Food Council. *Your Food – Chance or Choice?* New England Dairy and Food Council. *Mobile* *A Basic Breakfast Pattern.* Cereal Institute, Inc.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		Pamphlets "Can Food Make the Difference?" Council on Foods and Nutrition of the American Medical Association. "The Nutrition Ladder.." Florida Citrus Commission. *Poster* *The Nutrition Ladder to Better Health.* Florida Citrus Commission.
The way food is handled influences health. 1. Refrigeration (essential for perishable foods) 2. Canned and packaged goods (have limited shelf-life) 3. Methods of food preparation (affect amount and quality of nutrients) *Foods are processed by different methods.* *The variety of foods available in this country is due in part to methods of preservation.* *Food processing must be done under sanitary conditions to keep food safe.* *Food additives can occur intentionally or accidentally.* 1. Intentional additives a. Enahance food nutritionally b. Add to its flavor, appearance, or "keeping" qualities 2. Accidental additives (lead to spoilage or poisoning)	1. Discuss food storage facilities in the home. 2. Tour the school cafeteria kitchen to observe storage methods. 3. Have the students do research on the effects of heat and light on nutrients. 4. Have some students report on how cooking changes the amount and quality of nutrients in foods. 5. Set up a display of empty food packages to illustrate various ways foods are processed (salting, pickling, drying, canning, freezing, freeze-drying). 6. Take a field trip to a dairy, cannery, or food processing plant. 7. Have some students report on methods of food processing. 8. Examine labels on food packages to note the nutritional enrichment or fortification (bread, margarine, fruit drinks). 9. Have a group of students obtain information and report on the functions of other types of additives.	*Films* *Food for a Modern World.* National Dairy Council. *How Your Body Uses Food.* National Dairy Council. *Pamphlets* "Additives in Our Foods." United States Department of Health, Education and Welfare. "Council Statement: Improvement of Nutritive Quality of Foods." Council on Foods and Nutrition of American Medical Association. "Council Statement: Safe Use of Chemicals in Foods." Council on Foods and Nutrition of the American Medical Association. "How Safe Is Our Food?" United States Department of Health, Education and Welfare.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	10. Discuss types of food poisoning such as staphylococcus, streptococcus, botulism.	
Local health departments, state governments, and the federal government have regulations to insure safe food and water.	1. Have groups of students visit several markets to examine labeling of meat and processed foods.	*Books* Lowenberg, M., *et al. Food and Man.* McWilliams, M. *Nutrition for the Growing Years.*
1. Federal Food and Drug Administration (established to protect all citizens)	2. Interview a food service supervisor for information regarding local and state laws in purchasing, preparing, and serving food.	
2. State departments (establish state codes to provide standards for food service establishments)	3. Discuss nutrition and safety services supplied by the community.	
3. Local health departments (established to implement and amplify specific state and federal laws relating to foods)	4. Invite a city or town health official to speak on safe food, water, and sanitation.	

Area II MENTAL AND SOCIAL HEALTH

Field of Study ALCOHOL (Junior High)

Objectives

To help the student to:

1. Become aware of current facts about alcohol and its use.
2. Understand the emotional, social, and psychological effects of alcohol beverages on the individual.
3. Understand alcoholism and its causes.
4. Understand his own attitude about drinking.
5. Develop an understanding of the responsibilities and consequences associated with the decisions which are made about the use or non-use of alcohol.
6. Become aware of the various community agencies and services concerned with alcohol and alcoholism.

ALCOHOL (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
People have many misconceptions about alcohol. 1. Aid to appetite 2. A stimulant 3. Relief for colds and fever	1. Administer a Basic Information Checklist. (See Resources.) 2. Administer yes/no questionnaire in "Thinking About Drinking" pamphlet. (See Resources.)	*Pamphlets* "Facts About Alcohol." (Basic Information Checklist.) Science Research Associates. "Thinking About Drinking." Massachusetts Department of Public Health. Division of Alcoholism.
There are different types of alcohol used today. 1. Ethyl alcohol (source, uses) 2. Methyl alcohol – a dangerous poison (source, uses) 3. Alcoholic beverages a. Beer, 2-5% alcohol b. Wine, 10-14% alcohol c. Whiskey, 40-50% alcohol	1. Have the students make a checklist of the types of alcohol found in their homes. 2. Have the students identify the percentage and/or proof of alcohol content of various beverages. 3. Discuss why methyl alcohol is potentially fatal. 4. Discuss the methods of fermentation and distillation in making alcoholic beverages. 5. Prepare a report on the chemistry of alcohol.	*Books* Keller, Mark. *How Alcohol Affects the Body.* McCarthy, Raymond. *Alcohol Education for the Classroom and Community.* *Transparencies* *Beverage Alcohol Content.* D.C.A. Educational Products, Inc. *Damage to Body Organs.* D.C.A. Educational Products, Inc.
The use of alcohol has varying effects on the body. 1. Physiological effects a. Absorption (1) Alcohol concentration (2) Presence of food in stomach (3) Speed of drinking (4) Body weight b. Metabolism c. Nervous system d. Liver e. Circulatory system f. Resistance to infection g. Skilled performance	1. Define and relate to alcohol the terms *sedative, narcotic, anesthetic, depressant, analgesic.* 2. Discuss the differences in the digestion and absorption of food and alcohol. 3. Use schematic drawings and charts to trace the absorption of alcohol by the body. 4. Give alcohol in varying amounts to experimental animals such as white mice and observe their behavior and movement.	*Books* Block, Marvin. *Alcoholism.* Byrd, Oliver E., *et al. Health* (7-8). Cain, Arthur. *Young People and Drinking.* Lewis, David C. *Alcohol, Barbiturates, Tranquilizers.* *Pamphlet* "Facts about Alcohol." Science Research Associates. *Film* *Brain Is the Reason.* National Women's Christian

Concepts and Primary Concerns	Sample Learning Experiences	Resources
2. Psychological effects a. Overconfidence b. Depression c. Guilt		Temperance Union. *Transparencies* *Concentration Build-Up in Blood.* D.C.A. Educational Products, Inc.
Alcoholism is a chronic disease and/or behavioral disorder. *The causes of alcoholism are still being researched.* 1. Physiological factors a. Allergy b. Metabolism c. Nutritional and hormonal deficiencies d. Hereditary factors 2. Psychological factors a. further research needed b. personality development plays a part c. communication between family members 3. Sociological factors (cultural differences) 4. Environmental factors a. Role of school and community b. Alcohol consumption and rate of alcoholism not consistent 5. Symptoms of alcoholism a. Drinks more and more often b. Blacks out c. Drinks secretly d. Drinks rather than eats e. Drinks rapidly	1. Discuss the observable changes which occur in a person as the alcohol level in his blood increases. 2. Have the students identify alcohol as a drug and its effect as a depressant. 3. Discuss the relationship between excessive drinking and physiological changes in the body. 4. Discuss the statement "The body rids itself of alcohol without digesting it and using it like other foods." 5. Have the students do research on the statement "All individuals do not react to alcohol the same way." 6. Have each student write a definition of an alcoholic in less than 25 words. Discuss the contributions made by the students.	*Books* Gmur, Fodor, *et al. Making Health Decisions.* Greenburg, Leon A. *What the Body Does with Alcohol.* Irwin, Leslie W., *et al. Patterns for Living.* McCarthy, Raymond G. *Alcohol Education for the Classroom and Community.* Shevlin, Julius B., and Goldberg, Isidor. *Facts About Alcohol.* Todd, Frances. *Teaching About Alcohol.* *Film* *Teenagers Talk About Drinking.* Massachusetts Department of Education. *Pamphlets* "Alcohol and Alcoholism." United States Department of Health, Education and Welfare. "Facts About Alcohol." Science Research Associates. "Manual on Alcoholism." American Medical Association. "What About Drinking." Congress of Parents and Massachusetts Teachers, Inc.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Teen-agers are frequently exposed to alcohol and social drinking. 1. Reasons teen-agers drink a. To imitate adults b. For peer acceptance c. To rebel against authority d. To experiment 2. Reasons teen-agers do not drink a. Religious training b. Parental influence c. Personal conviction 3. Degrees of drinking a. Drinking b. Drunkeness c. Alcoholism 4. Effect of alcohol on teen-agers a. Affects decision making b. Causes physical and psychological reactions c. Modifies inhibitions and self-restraint	1. Have students keep a record for a given period of the number of times they observe adults drinking on TV. Report the findings to the class. 2. Role play a situation where a student is offered a drink and has to make a decision. 3. Through interviews and investigations organize panel discussions concerning the thinking of various religious faiths about drinking. 4. Have a student do research on the legal limit of drunkeness in Massachusetts. 5. Discuss why the prohibition amendment failed. 6. Discuss physical and mental growth during the teen-age period of development. 7. Discuss the meaning of the term attitude, and then discuss how attitudes can change behavior and influence decisions. 8. Collect newspaper clippings which show involvement of alcohol and crime.	*Article* "Teen-agers and Alcohol: Recent Research." Annals of the New York Academy of Sciences. *Books* Cain, Arthur H. *Young People and Drinking.* Carroll, Charles R. *Alcohol: Use, Nonuse and Abuse.* Rice, T.B., and Harger, R. *Effects of Alcoholic Drinks, Tobacco, Sedatives, Narcotics.* *Film* *A New Look at the Old Source.* Women's Auxiliary Massachusetts Medical Society. *Pamphlets* "The Classic Temperance Movement of the U.S.A." Bacon, Sheldon D. "How Teens Set the Stage for Alcoholism." American Medical Association. "Manual on Alcoholism." American Medical Association. *Pamphlet* "Understanding Yourself." Science Research Associates. *Transparencies* *Five Steps to Alcoholism.* D.C.A. Educational Products, Inc.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The individual has a responsibility to himself and to society with regard to the use of alcohol. 1. Responsibility to oneself a. Seeks out accurate information b. Self-evaluation of drinking practices (1) Reasons for Drinking (2) Frequency (3) Degree 2. Responsibility to others a. Family and friends b. The community c. Acceptance of those who do not drink d. Helps those with a drinking problem e. Drinking and driving	1. Have a discussion on individual and community responsibility. 2. Organize student groups to discuss how to cope with feelings of loneliness, worthlessness, anger, and the need to escape. (See Emotional Development section.) 3. Discuss and then role play the social and personal implications of refusing a drink. 4. Invite a law-enforcement officer to visit and discuss the use of alcohol as it relates to breaking the law.	*Books* Chafetz, Morris E. *Liquor the Servant of Man.* Hough, Henry B. *An Alcoholic to His Sons.* *Film* *Alcoholism.* Massachusetts Department of Education. *Pamphlet* "Thinking About Drinking." Massachusetts Department of Public Health, Division of Alcoholism. *Transparencies* *Costs to Society.* D.C.A. Educational Products, Inc. *Damage to Family Life.* D.C.A. Educational Products, Inc.
There are numerous agencies involved in helping to solve community problems related to alcohol and alcoholism. 1. Department of Public Health, Division of Alcoholism. 2. Department of Mental Health 3. Massachusetts Medical Society 4. Alcoholics Anonymous 5. Al-Anon-Family Group 6. Al-A-teens 7. Local police departments	1. Invite a member of the Division of Alcoholism to speak to the class. 2. Invite a social worker to visit the class and discuss the relationship of alcohol to various societal problems. 3. Invite a member of Alcoholics Anonymous who can relate to teen-agers to visit and discuss the problem of alcoholism.	*Transparencies* *Steps to Recovery.* D.C.A. Education Products, Inc.

Field of Study DRUGS (Junior High)

Objectives

To help the student to:

1. Understand the historical background relating to the present-day use of drugs.
2. Understand the many reasons why people use drugs even though drugs effect health and behavior.
3. Understand the effects of drugs upon one's physical and mental health.
4. Make wise decisions concerning the use of drugs.
5. Explore the various laws concerned with the use and distribution of drugs.
6. Become acquainted with the various resource centers where assistance may be obtained in the area of drugs and drug related problems.

DRUGS (Junior High)

Concepts and Primary Concerns	Sample Learning Experience	Resources
Drugs have been utilized to service mankind medically and spiritually. 1. Narcotic analgesics (pain, fatigue, tension relievers, and synthetic opiates) 2. Depressants (sedatives, e.g., barbiturates) 3. Tranquilizers (e.g., librium, reserpine, etc.) 4. Stimulants (amphetamines, e.g., benzedrine, methedrine, dexedrine, cocain, etc.) 5. Hallucinogens (e.g., LSD, mescaline, psilocybin, DMT, DET, STP, marijuana, etc.) 6. Volatile solvents (deliriants, e.g., glue, kerosene, gasoline)	1. Discuss popular literature in which drugs play an important role *(Sleeping Beauty, Snow White).* 2. Use pictures of the various tablets, capsules, etc., of different drugs to construct a poster or chart, illustrating as many common drugs as possible along with their effects, medical uses, and interesting history. 3. Invite a pharmacist to class to discuss the ways in which drugs have been used in the past to help cure disorders or relieve pain. 4. If time permits, invite the pharmacist to expand his discussion to explain the responsibilities of a druggist in drug distribution. 5. Have a panel discussion on "The ways drugs have aided mankind." 6. Invite the school nurse to speak to the class on the proper use of drugs. 7. Show the film "LSD-Insight or Insanity."	*Films* *LSD – Insight or Insanity.* Bailey Films. *Marijuana.* Bureau of Narcotics and Dangerous Drugs. *Flip Charts* Winston Products for Education. *Pamphlets* "Drug Abuse: The Empty Life." Smith, Kline and French Laboratories. "Drug Abuse: Escape to Nowhere." National Educational Association. "The Drug Experience: Psychedelics, Depressants, Stimulants, Opiates." C.S.C.S., Inc. "Drugs of Abuse." United States Government Printing Office. "F.D.A. – Drug Visual Aids." Food and Drug Administration. "The Glue Sniffing Problem." American Social Health Association. "Narcotics: Dangerous Drug Abuse, Instruction Guide." Winston Products for Education.
Drug use by younger people continues to become more prevalent. 1. Influences a. Inquisitiveness and experimentation b. Accessibility of chemical substances within the home (e.g., cleaning substances, glue, shellac, etc.) c. Peer group and family pressures.	1. Discuss the trend of the shifting of drug experimentation from college-age youth to elementary school children. 2. Review the data from the survey of the Arlington Public Schools. 3. Have students list the various substances in their homes which could be misused.	*Books* American School Health Association. *Teaching About Drugs.* Kaplan, Robert. *Drug Abuse: Perspectives on Drugs.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
d. Academic pressures directed from parents, peers, and self e. Inability to cope with reality and the physical environment (pressures, body imbalances, and environmental temperatures) 2. Possible consequences a. Psychological dependence b. Physical dependence c. Death	4. Assign a paper on "Why drug abuse by American youth continues to increase." 5. Discuss the inherent dangers of experimenting with drugs. 6. List the various pressures to which the class members feel they have been exposed, and discuss their feelings on the matter. 7. Radio and TV commercials, taped in advance by the teacher or students and presented to the class, will allow for a close examination of the information contained in the commercials and the approaches taken to motivate people to try various over-the-counter drugs. 8. Discuss how the human body reacts to physical and psychological stress. 9. Through student-centered discussions, construct a list of needs resulting from changes in physical environment. Follow up with some possible solutions to these problems. 10. Invite a physician to visit the class and discuss the differences between physical and psychological dependence on drugs. As a follow-up have the students list the drugs which fall into each category.	*Film* *The Losers.* Bureau of Narcotics and Dangerous Drugs. *Pamphlets* "Arlington Report." Division of Drug Rehabilitation. Massachusetts Department of Mental Health. "Drug Abuse: The Chemical Cop-Out." National Association of Blue Shield Plans. "The Narcotic-Addiction Problem." American Social Health Association. "Narcotic Drug Addiction." Public Health Service Publication. United States Department of Health, Education and Welfare. *Transparencies* *The Use and Misuse of Drugs.* D.C.A. Educational Products, Inc.
Drugs are used by physicians to promote better health. 1. To treat illness a. Physical b. Psychological 2. To prevent disease a. Antibiotics b. Vaccinations c. Antiseptics		*Book* Public Health Service Publication. *Resource Book for Drug Abuse Education.* *Pamphlet* "First Facts about Drugs." United States Department of Health, Education and Welfare.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Improper use of drugs can have a negative effect upon the individual. 1. Central nervous 2. Cardiovascular 3. Respiratory 4. Gastrointestinal 5. Excretory 6. Integumentary 7. Skeleto-muscular	1. Using anatomical charts, describe the key body organs and the effects on these organs from the use of drugs. 2. View the film *Drugs and the Nervous System.* 3. Review tapes of drug users and accompanying transcripts. Discuss in detail the questions for discussion at the end of each. 4. Have students describe the problems of one who uses drugs or those problems that may develop in such an individual. 5. Have the students prepare a report on the effect that drug use has on the total population.	*Books* Modell, Walter, and Lansing, Alfred. *Drugs.* Van Dyke, Henry T. *Youth and the Drug Problems.* *Films* *Beyond LSD* Massachusetts Department of Education. *Drugs and the Nervous System.* Churchill Films. *Pamphlets* "Data for Decision Making." C.S.C.S., Inc. "Drug Abuse: Game Without Winners." Government Printing Office. "Questions and Answers." Narcotics Addiction Control Commission.
Organs of the body can be permanently damaged by the misuse of drugs. 1. Brain 2. Heart 3. Liver 4. Kidneys		
Most individuals who abuse drugs have or may develop personality problems.		
Social problems may be created through the misuse of drugs. 1. Venereal diseases 2. Extramarital pregnancy 3. Psychoses 4. Serum hepatitis 5. Others		
Decision-making skills, like all skills, require knowledge and practice. *Accurate information is paramount in the formulation of wise decisions.*	1. Define the term *decision.* 2. Have students tell of recent decisions that they have made and what factors they considered in the process.	*Books* Byrd, Oliver, *et al. Health.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Wise decision-making necessitates the separation of fact from fantasy. *Decisions are reinforced through favorable family relationships.*	3. Review the discussion questions at the conclusion of each section in the C.S.C.S. material. 4. Have student list common emotions that they have experienced and how they coped with them. 5. Invite several parents to participate in a panel discussion concerning the parents' role in decision-making. 6. Set up the following role-playing situations within the classroom: (1) two students involved in a situation where one student attempts to persuade the other to take drugs; (2) one student, assuming the role of the parent, attempts to reason with the child that drugs can cause possible harm and that experimentation should be avoided; (3) one student, assuming the role of a guidance counselor, tries to get the student who has become involved with drugs to obtain psychiatric assistance.	Irwin, Leslie W., *et al. Foundations for Fitness.* *Pamphlet* "Answers to the Most Frequently Asked Questions About Drugs." Public Health Service. United States Department of Health, Education and Welfare.
Laws exist at the federal and state levels concerned with the possession, sale, and transportation of drugs. 1. Developed to safeguard the individual and the community 2. Being reviewed and revised 3. Enforcement (role of law enforcement agencies, e.g., federal, state, local) 4. Prosecution of violators 5. Role of the courts a. Prosecution of violators b. Probation and rehabilitation recommendations	1. Provide each student with a chart of the federal and state drug laws. Discuss the laws and define the terms *possession, sale, transportation,* and *use.* 2. Have a member of the legislature come to class to discuss pending legislation on drugs. 3. Distribute copies of the various state laws governing drug control. Discuss the laws in detail. 4. Discuss the reasons for laws in general and specifically drug laws. 5. Have the local police narcotic agent come into the class to discuss local police controls on drugs.	*Pamphlets* "The Addict and the Law." Indiana University Press. "Federal and Massachusetts Drug Laws." Massachusetts Department of Education. "The Marijuana Decision." Narcotic Addiction Control Commission, New York City. "New Trends in Narcotic Addiction Control." Public Health Report. United States Department of Health, Education and Welfare.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	6. Have a member of the local district court probation department discuss the role of the court in drug cases. 7. Discuss the effect of a court record on the career of the student.	
Professional assistance is available and valuable for those who seek aid in making decisions. 1. Local guidance staff 2. Local mental health clinics 3. Clergy 4. Community Health Council 5. Local physicians 6. Local schools (educational programs) 7. Rehabilitation facilities (halfway houses, out-patient clinics, community counseling centers)	1. Have a member of the school guidance staff discuss the role of the guidance office in helping students. 2. Explain to the students the make-up of the School-Community Health Council. Have a member of the Council come to class to discuss the work of the Council. 3. Have the school physician or school nurse discuss with the class the various medical consultants available locally. 4. Discuss the total Community-School Drug Education program. 5. Invite a physician to speak to the class regarding the doctor-patient relationship (treatment, confidence, legal responsibility). 6. Provide the students with an up to-date list of drug rehabilitation agencies.	*Book* Byrd, Oliver, E., *et al. Health* (8) *Pamphlets* "Don't Guess About Drugs." National Clearing House for Mental Health Information. "Help a Narcotic Addict." Narcotic Addiction Control Commission, New York City. "Rehabilitation in Drug Addiction." Public Health Publication. United States Department of Health, Education and Welfare.

Area II MENTAL AND SOCIAL HEALTH

Field of Study EMOTIONAL DEVELOPMENT (Junior High)

Objectives

To help the student to:

1. Understand the factors which contribute to the emotional make-up of each individual.
2. Establish proper attitudes toward the interaction between individuals.
3. Develop an awareness of the influence of existing socio-economic structures.
4. Understand the importance of the relationship between the environment and good mental health.

EMOTIONAL DEVELOPMENT (Junior High)

Concepts and Primary Concerns

The development of an individual's personality structure is influenced by his needs and environment.

The development of the total personality is a continuing process.

1. Physical development
   a. Variations in growth patterns
   b. Determined to a degree by good health habits
2. Emotional development
   a. Influenced by both positive and negative feelings
   b. Emotions can be controlled
3. Mental development
   a. Mental capacities stimulated through taking advantage of educational opportunities
   b. individual motivation
4. Social development
   a. Getting along with others
   b. Wide variations between individuals
5. Needs which influence personality
   a. Sense of personal worth
   b. Personal achievement
   c. Love
   d. Creativeness
   e. Exemplars
   f. Security
   g. Self-confidence
   h. Satisfaction
6. Satisfying one's needs
   a. Defense mechanisms
   b. Escape mechanisms

Sample Learning Experiences

1. Discuss methods of self-evaluation and establishing goals for oneself.
2. Discuss the differences in size and body proportions of boys and girls at the beginning and at the end of puberty.
3. Have the students make a list of all the emotions they are familiar with. Discuss different emotions as they relate to personality.
4. Discuss the fact that although emotions do not originate in any particular body system, they may affect all the body systems.
5. Arrange to have the school psychologist visit the class and discuss the relationships of the mind and body in maintaining good mental health.
6. Discuss the relationship between school grades and the individual's mental capabilities.
7. Have the students make a list of personality traits (reliability, loyalty, honesty, etc.)
8. Have each student write a brief paper on "Taking a close and honest look at myself."
9. Identify basic human needs and discuss the importance of satisfying these in personality development.
10. Have each student keep a record of any escape mechanisms he used for a two-week period. Discuss individual records.
11. Discuss how personality changes rather than remaining static.
12. Have the students identify physical factors around them which influence their behavior.

Resources

Books

Byler, Ruth, *et al. Teach Us What We Want to Know.*

Clayton, Thomas E. *Teaching and Learning* (Part 3).

Humphreyville, Frances. *The Years Between.*

Irwin, Leslie W., *et al. Patterns for Living.*

Schneider, Robert E. *Health and Growth.*

Smith, Bert Kruger. *No Language but a Cry.*

Wilson, John Rowan. *The Mind.*

Yoho, Robert O. *Health for Today.*

Films

The Meaning of Adolescence. McGraw-Hill Book Company.

Steps Toward Maturity and Health. Massachusetts Department of Education.

Filmstrip

Courage. Eye-Gate House, Inc.

The Golden Rule. Eye-Gate House, Inc.

No One Will Know the Difference. Eye-Gate House, Inc.

Monograph

The Protection and Promotion of Mental Health in Schools. Mental Health Monograph.

Pamphlets

"Growing up Socially." Science Research Associates.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
7. Environment a. Physical (1) Climate (2) Noise (3) Housing (4) Traffic (5) Colors (6) Pace of living (7) Crowded conditions b. Social (1) Family (2) Friends (3) Community	13. Discuss the importance of the social environment and its influence on personality development. 14. Discuss some of the expectations of teen-agers and whether they are realistic. 15. Have the students read *The Years Between* by Frances Humphreyville or *The Yearling* by Marjorie K. Rawlings, and report on how some of the characters in the books solved their problems. 16. Invite a clinical psychologist to discuss varying degrees of mental health.	"Understanding Yourself." Science Research Associates.
8. Identification and solution of individual problems a. Recognizing the problem b. Physical limitations c. Unsatisfied needs d. Unrealistic goals e. Conflicts (1) With self (2) With friends (3) With adults	17. Discuss mental retardation. 18. Discuss the causes and cures of mental illness. 19. Arrange for a psychiatrist and/or psychologist to discuss psychological services provided within the community and procedures for obtaining them. 20. Have some students identify organizations involved in the promotion of good mental health and discuss their services.	
9. Approaching a solution a. Talking about the problem (1) With parents (2) With other adults (3) With friends (4) With professionals		
10. Varying degrees of mental health a. Well adjusted b. Moderately disturbed c. Severely disturbed		
11. Availability and utilization of psychological services		

Concepts and Primary Concerns	Sample Learning Experiences	Resources
As a member of society each individual must interact with others. 1. Inter-personal relationships a. Small groups (provide for closer association) b. Large groups (broaden the individual's perspective) 2. Factors essential for team work a. Cooperation b. Compromise c. Enthusiasm d. Appreciating viewpoint of others 3. Assessment of peer group a. Values b. Goals c. Influence d. Acceptance and/or rejection 4. Boy-girl relationships a. Dating patterns b. Dating issues (1) Acceptance (2) Refusal (3) Dating activities 5. Adolescent-parent relationships a. Growing with the family b. Discussing problems c. Listening to others d. Participating in family activities 6. Influence of other groups.	1. Discuss the importance of completing assigned tasks even when an individual does not especially like them. 2. Establish committees for small-group work and for large-group work. 3. Have the class discuss factors which contribute to effective teamwork. 4. Have the students work on a specific project and evaluate student interaction at the completion of the project. 5. Arrange a panel discussion on the qualities which are necessary for friendship. 6. Discuss feelings that show that people often react in a similar fashion to similar situations. 7. Discuss reasons why friendships change. 8. Have a committee write a script, dealing with dating etiquette. Have students act out the script. 9. Have the students make a list of personal traits and characteristics which they most admire. Make a tabulation of the students' responses and use these for discussion. 10. Have each student use the above list as a self-check. 11. Discuss various ways in which individuals may contribute to good family relationships. 12. Discuss the "generation gap."	*Books* Irwin, Leslie W., *et al. Patterns for Living.* Schneider, Robert E. *Health and Growth.* *Films* *Beginning to Date.* Encyclopaedia Britannica Educational Corp. *The Bully.* McGraw-Hill Book Company. *Dating Do's and Don'ts.* Coronet Films. *The Fun of Being Thoughtful.* Coronet Films. *Making Friends.* Encyclopaedia Britannica Educational Corp. *Parents Are People Too.* McGraw-Hill Book Company. *The Troublemaker.* McGraw-Hill Book Company. *What To Do on a Date.* Coronet Films. *Filmstrips* *Using Your Time and Ability.* Jam-Handy Organization. *Your Feelings.* Jam-Handy Organization. *Pamphlets* "Getting Along with Brothers and Sisters." Science Research Associates. "Getting Along with Parents." Science Research Associates. "How to Get Along with Others." Science Research Associates. "Making and Keeping Friends." Science Research Associates.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Decision-making skills, like all skills, require practice. 1. Acquisition of accurate information 2. Separation of fact from fantasy 3. Separation of fact from emotions 4. Favorable family relationships 5. Reinforce decision-making 6. Emotional maturity (growth in understanding, tolerance, acceptance, respect, etc.)	1. Have the students discuss how young people grow in ability to deal with abstractions, generalizations, and ideas. Relate these to making decisions. 2. Role play situations where the students must make decisions. Discuss whether or not the decisions made reflect mature judgment. 3. Discuss an individual's perception of a situation and how different perceptions of the same situation result in different decisions. 4. Have the students look at pictures of different individuals. Discuss the individuals and the hazards of prejudging these individuals.	*Films* *Developing Friendships.* Coronet Films. *Emotional Health.* McGraw-Hill Book Company. *The Other Fellow's Feelings.* McGraw-Hill Book Company. *Pamphlet* "Don't Rush Me!" Association for Childhood Education International.
Socio-economic status influences values, aspirations, and mental health. 1. Difference in values 2. Problems vary within socio-economic levels 3. Pressures 4. Selection of friends 5. Prejudice	1. Discuss symbols of success in our society (money, quantity of material possessions, quantity of associations, position and status of a person and a family). 2. Discuss and ompare the importance of social success with individual worth. 3. Discuss the importance of the appreciation of quality of friends irrespective of their socio-economic status. 4. Discuss the statement "No two people ever have the same environment." 5. Have the students compare status-seekers with true leaders.	*Book* Byrd, Oliver E., *et al. Health Today and Tomorrow.* *Pamphlet* "Ethics for Everyday Living." Science Research Associates.
The emotional environment can effect an individual's reaction to situations. 1. Home a. Festive occasions b. Family disagreements	1. Discuss how the home environment has a strong influence upon the individual's mental health. 2. Discuss the importance of older family members setting an example for younger members.	*Filmstrips* *Good Manners at School.* Eye-Gate House, Inc. *What Good Is School.* Society for Visual Education.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
2. School a. Pressures b. Student-teacher-administration relationships c. Personal involvement 3. Community a. Relationships among community members. b. Consideration for others c. Respect for property	3. Discuss student-teacher relationships and ways in which both student and teacher can contribute to a desirable classroom atmosphere. 4. Discuss how one feels before an important examination and the possible effect of these feelings on performance. 5. Discuss methods of dealing with success and failure. 6. Define the term *clique.* Discuss the effect of school cliques upon the school environment. 7. Have the students plan wholesome recreational activities for young people in the community. 8. Plan a campaign to help project a desirable image of the teen-ager to people in the community. 9. Discuss the legal responsibilities of parents for the actions of a minor.	*Pamphlets* "Getting Along in School." Science Research Associates. "High School Ahead." Science Research Associates.

Area II MENTAL AND SOCIAL HEALTH

Field of Study TOBACCO (Junior High)

Objectives

To help the student to:

1. Develop an understanding of the reasons why people smoke.
2. Accept responsibility for his own behavior in regard to smoking.
3. Become acquainted with scientific facts about smoking.
4. Develop the ability to critically evaluate fact as opposed to fiction in advertising.
5. Recognize the economic and political influences on individual judgments in the use of cigarettes.

TOBACCO (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
There are many reasons why people choose to smoke or not to smoke. 1. Social and psychological factors causing individuals to smoke a. Curiosity b. Peer approval c. Sociability d. Self-expression e. Identification (1) Adults (2) Movie stars f. Advertising 2. Reasons individuals continue to smoke a. Habit formation b. Psychological dependence	1. Have the class discuss and list on the chalkboard reasons *why* people smoke. Later they can group the reasons into categories (peer-group pressure, etc.) 2. Invite a behavioral psychologist to discuss "motivation" with the class. 3. Have students bring in advertisements directed toward specific groups (teen-agers, college students, etc.). Analyze the different advertising approaches to different groups. 4. Discuss the habits which people in other countries have which bear similarities to smoking (worry-beads, beetal nuts, etc.) 5. Compare and contrast cigarette smoking and the misuse of various drugs. 6. Have students list substitute actions for cigarette smoking. In what ways would each of the suggested substitutes be the same as, better than, or not as good as cigarette smoking?	*Books* Thackston, John A., and Newsom, William T. *Keeping Our Health* (8). Thackston, John A., Newsom, William T. *Protecting Our Health* (7). *Film* *Smoking Past and Present.* Local Cancer Society. *Filmstrip* *To Smoke or Not to Smoke.* Local Cancer Society. *Idea Kit* *Idea Kit on Smoking and Health.* Massachusetts Interagency Council on Smoking and Health. *Pamphlets* "Me Quit Smoking? How?" Local Tuberculosis and Respiratory Disease Association. "Me Quit Smoking? Why?" Local Tuberculosis and Respiratory Disease Association. "Smoke Cigarettes? Why?" Local Cancer Society.
Social and psychological factors influence people not to smoke. 1. Lack of desire 2. Economics 3. Conviction that smoking is morally wrong 4. Aesthetics a. Odor b. Discoloration of fingers and teeth	1. Discuss the effectiveness of health warnings on cigarettes. Discuss the possible effectiveness of banning the sale of cigarettes. 2. Arrange for students to spend school time in an anti-smoking agency, interviewing staff. 3. Have a student committee review the various materials on smoking distributed by health agencies, and then send their criticisms and suggestions for improved or different materials to the agencies.	*Article* "What the Cigarette Commercials Don't Show." Reader's Digest. (Reprint available from local office of American Cancer Society.) *Film* *Point of View.* Local Tuberculosis and Respiratory Disease Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
5. Health reasons 6. Advertising (anti-smoking ads on TV and radio) 7. Legislation 8. Agencies working to combat smoking a. Kinds of agencies (1) Voluntary (2) Official (3) Professional b. Efforts of agencies (1) Audio visual (2) Support of research (3) Withdrawal clinics (4) Legislative activities		*Pamphlets* "100,000 Doctors Have Quit Smoking." Local Cancer Society. "Enjoy the Pleasures of not Smoking." Local Heart Association.
Duration of smoking and the number of cigarettes smoked are directly related to health risks. 1. Harmful substances found in cigarette smoke. a. Corrosive irritants (1) Carbon monoxide (2) Nitrogen dioxide (3) Methyl alcohol (4) Amonia (5) Acetic acid b. Carcinogenic agents (nicotine, etc.) 2. Short-term health effects a. Allergic reactions b. Smoker's cough c. Shortness of breath d. Loss of taste and smell e. Hoarseness f. Fatigue 3. Long-term health effects	1. Have the students compare substances inhaled with cigarette smoke to substances found in polluted air. 2. Have the students do experiments to illustrate the effects of various chemicals on the body. 3. Have the class "teach" another class about one or more facets of smoking and health. The students can use slides, posters, cartoons, fact sheets, or an inter-class newsletter as aids to teaching. The newsletter can incorporate columns written from the point of view of the tobacco grower, southern senator, cancer researcher, elementary school student, heavy smoker. 4. Invite through the Cancer Society or Tuberculosis and Respiratory Disease Association a laryngectomy or emphysematous patient to speak to the class.	*Book* Diehl, Harold. *Tobacco and Your Health: The Smoking Controversy.* *Pamphlets* "Breathing – What You Need to Know." Local Tuberculosis and Respiratory Disease Association. "Cancer of the Lung." Local Cancer Society. "Cigarette Smoking and Cardiovascular Disease." Local Heart Association. "Cigarette Smoking, Emphysema, Chronic Bronchitis, Shortness of Breath, Chronic Cough . . . The Facts." Local Tuberculosis and Respiratory Disease Association. "The Effects of Smoking." Local Cancer Society. "Fact Series Pamphlets." Local Tuberculosis and Respiratory Disease Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
a. Lung cancer b. Cancer of the larynx c. Respiratory diseases (1) Chronic bronchitis (2) Emphysema d. Heart disease e. Gastric and duodenal ulcer f. Buerger's disease.		"Health Consequences of Smoking." United States Department of Health, Education and Welfare. "Questions Most Often Asked About Cigarette Smoking and Lung Cancer." Local Cancer Society. "Report of Tar and Nicotine Content of the Smoke of 119 Varieties of Cigarettes." Federal Trade Commission. "Smoking and Health Experiments, Demonstration and Exhibits." United States Department of Health, Education and Welfare. "Smoking and Health." United States Department of Health, Education and Welfare. "Smoking and Illness." United States Department of Health, Education and Welfare. "What Everyone Should Know About Smoking and Heart Disease." Local Heart Association.
Cigarette smoking presents many hazards to home and community. 1. Damage to person a. Burns b. Suffocation 2. Damage to property a. Homes b. Businesses c. Natural resources	1. Invite a policeman or fireman to speak to the class, discussing actual recent happenings in the community that occurred as a result of cigarette smoking. 2. Have the students examine some of the hazards of smoking in terms of the ecological problems presently receiving such public attention and concern.	*Books* Byrd, Oliver E., *et al. Health* (7-8). Shyrock, Harold. *Mind if I Smoke?*
The national economic benefits derived from the tobacco industry should be weighed against the cost in terms of human health and welfare along with the negative economic factors related to the use of tobacco.	1. Have the students investigate the amount of money being spent on education, mental health, poverty programs, etc. Compare these figures to money spent on tobacco.	*Books* Irwin, Leslie W., *et al. Dimensions in Health Series: Foundations for Fitness. Patterns for Living.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
1. Estimated expenditure for tobacco products 2. Lost time from work (cost of medical care for illnesses related to heavy smoking)	2. Do research on and discuss the social as well as economic impact of disability payments because of illness due to smoking.	*Pamphlets* "Annual Report on Tobacco Statistics." United States Government.
3. Disability payments to patients with lung cancer and other diseases related to cigarette smoking	3. Have the students report on the economic impact of the tobacco industry in southern states.	"Smoking, Tobacco and Health." National Clearinghouse for Smoking and Health.
4. Economic importance of tobacco industry to states	4. Investigate the possible impact on the cigarette industry and related industries if the manufacture of cigarettes is stopped.	

Area III CONSUMER AND ENVIRONMENTAL HEALTH

Field of Study CONSUMER HEALTH (Junior High)

Objectives

To help the student to:

1. Become aware of the basic factors involved in consumer motivation.
2. Understand the background of health quackery.
3. Become aware of the practice of health quackery and to identify individuals practicing fraudulent techniques.
4. Know the factual data that will permit him to make wise choices and to use sound judgment in buying.
5. Be cognizant of the role of individuals, voluntary agencies, professional organizations, and government in consumer protection activities.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The motives that guide health behavior play a significant part in consumer health. 1. Physical (improve appearance) 2. Emotional a. Peer acceptance b. More mature c. Fear appeal 3. Social a. More socially acceptable b. Fashionable	1. Have the students discuss the reasons why people choose and buy various items. 2. Have the students discuss situations in which fear of illness can result in harmful actions. Tell how these situations may be avoided. 3. Have the class discuss the slogan "Let the buyer beware." 4. Have a few students make a list of health-related products that teen-agers frequently buy. Have the class discuss these items as being typical of teen-age choices.	*Article* "AMA – FDA Rap Diet Pill Fad." *Today's Health.* April, 1968. *Book* Irwin, Leslie W., *et al. Patterns for Living.* *Pamphlets* "Cosmetics Facts for Consumers." Food and Drug Administration. United States Department of Health, Education and Welfare. "Did You Know That?" American Medical Association.
Teen-agers have beome important purchasers in today's market. 1. Percentage of market controlled by teen-age buyers 2. Influence of teen-age buying habits on adult buying	1. Have the students estimate the purchasing power of teen-agers, and determine the extent of their spending on health-related products. 2. Discuss industries existing primarily because of teen-age buyers (record and surfboard companies.). 3. Have the students analyze how the teen-age dollar is spent.	*Book* Byrd, Oliver E., *et al. Health* (8). *Guide* "Consumer Report Buying Guide." Consumer Union Special Publications. *Pamphlets* "Prices." Food and Drug Administration. "Your Money and Your Life." Food and Drug Administration.
The producers of health products are constantly analyzing the purchasing habits of teen-age buyers. Teen-age purchases influenced by rational judgments, emotional reaction, packaging, seasons, style	1. Discuss the effect of seasons on the buying habits of teen-agers. 2. Have the students make a list of popular brands of goods. Discuss whether these goods are purchased because of rational judgment or emotional response.	*Book* Gentry, Curt. *The Vulnerable Americans.* *Film* *Consumer Protection.* Coronet Films.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	3. Have the students interview radio or television station personnel to discuss advertising techniques used in the communication media. 4. Have the students make health posters, using such ideas as testimonials, fear appeals, partial truths, out-of-context statements, promises of miracles. 5. Discuss the impact of television on the teen-age buyer. 6. Discuss a student's reaction to a given advertisement. Then discuss a parent's reaction. Are they similar or different? Why?	
Health quackery has a significant historical record in the development of medicine. 1. Quacks and their motives 2. Use of nostrums, secret medicines, mechanical devices, etc.	1. Define the term *health quackery.* 2. Have the students do research on the history of ancient remedies before the 17th century. 3. Have a few students explore the growth of quackery in the United States. 4. Trace the history of any well-known non-prescription product. 5. Discuss methods by which quacks have capitalized upon religious beliefs and "miracles."	*Article* "Do-it-yourself Doctors of the Old West." *Today's Health.* October, 1965. *Books* Dunlop, Richard. *Doctors on the Frontier.* Gardiner, M. *Fads and Fallacies in the Name of Science.* *Films* *Man Alive.* Lederle Laboratories. *Quacks and Nostrums.* Local or State Health Department. *Pamphlets* "Beware of Health Quacks." American Medical Association. "Fake Medical Devices." Food and Drug Administration.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The practice of quackery is prevalent in today's society. 1. Health practitioners 2. Books and literature 3. Mail order houses 4. Door-to-door salesmen	1. Discuss how a person can distinguish between a professional and an unreliable practitioner. 2. Have students bring in health materials received in the mails. Discuss the reliability of contents. 3. Discuss mailing lists and how one's name is placed on them.	*Articles* "Beware of Mailman Bearing Gifts." *Consumer Report.* November, 1968. "Let the Reader Beware." *Consumer Report.* October, 1965.
Identification of individuals involved in the practice of health quackery is often difficult. 1. Pose in professional attire 2. Establishment of regional offices 3. False certificates and diplomas available	1. Have students discuss quackery with their physicians. 2. Have the students role play a solicitor or door-to-door salesman visiting a home. Stress the legal identification of the individual.	*Articles* "Health Books: Reader Beware." *Today's Health.* March, 1969. "Mail Order Doctoring Still a Menace." *Today's Health.* June, 1967.
Fraudulent techniques employed in health quackery are many and varied. 1. Therapeutic devices a. Those dangerous to life when used without professional assistance b. Worthless items (1) Used for specific "cures" and possibly causing further damage (2) Often delay seeking medical assistance 2. Illnesses and conditions commonly abused by quacks a. Arthritis b. Cancer c. Obesity d. Skin problems e. Emotional problems 3. Packaging of goods (emotional appeal)	1. Have a student interview a member of the county or state medical association and report back to the class on the role of the organization on practices in medical quackery. 2. Have some students prepare brief talks on "selling" a product. Have others attempt to analyze facts and false statements. 3. Discuss how quackery can lead to indebtedness and dependency. 4. Have the students analyze claims placed on packages that promise improved health. 5. Have the students bring in magazine and newspaper clippings that appeal to the buyer of exercise devices.	*Pamphlets* "Arthritis Quackery Today." Arthritis and Rheumatism Foundation. "Don't Fall for These Gimmicks." Better Business Bureau. "Facts on Quacks." American Medical Association. "Quackery in Arthritis." Arthritis and Rheumatism Foundation. *Transparencies* *Additives in Our Food.* D.C.A. Educational Products, Inc.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
4. Exercise devices which make inaccurate health claims.		
Conditions sometime prevent sound health judgments. 1. Educational 2. Economic 3. Psychological	1. Discuss the criteria to be used in identifying reliable health products. 2. Discuss reasons individuals sometimes turn to quackery (lack of knowledge, lack of confidence, lack of finances, desperation, too few medical personnel available). 3. Compare three brands of aspirins (various price ranges) and discuss what differences, if any, are found in content and effect.	*Article* "Educational Defenses Against Quackery." *Journal of School Health.* March, 1968. *Book* Gmur, B.C., *et al. Making Health Decisions.* *Pamphlets* "Guides Against Bait Advertising." Federal Trade Commission. "How the Consumer Can Report." Food and Drug Administration. "Read the Label." Federal Food and Drug Administration.
An alert and wise consumer will insure better health products and services. 1. Recommendation of physicians for medical products 2. Close observation of label for ingredients and directions 3. Disregard for high-powered advertising 4. Need for independent decisions	1. Discuss dosages and measuring units on medications. Invite a pharmacist to discuss this topic and demonstrate the methods by which prescription medicines are prepared. 2. Invite a representative of a local newspaper advertising department to discuss whether newspapers have standards for accepting health advertising.	*Films* *Attitudes in Health.* Coronet Films. *The Health Fraud Racket.* National Medical Audio-Visual Center. *Pamphlet* "Self Medication Medicine: Prescription and Over the Counter." Food and Drug Administration. United States Department of Health, Education and Welfare.
The specific needs and values of goods and services must be considered to insure a wise choice when purchasing.	1. Have the students list some of the needs of the teen-ager related to health. 2. Have the students study their school health insurance.	*Book* Haag, Jessie H. *Health Education for Young Adults.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
1. Products a. Skin cleansers b. Beauty aids 2. Services a. Clinics b. Hospitalization c. Personal health and accident insurance	3. Have the students check to see if their parents have health or accident insurance. Discuss the different kinds of insurance and the benefits and costs. 4. Invite an administrator to discuss the rationale behind school insurance.	*Filmstrip* *Dollars for Health.* Institute on Life Insurance. *Pamphlets* "How to be a Better Patient." American Medical Association. "Let's Use, Not Abuse Health." American Medical Association. "Making Medical Care Better." Public Affairs Committee. "The New ABC's of Health Insurance." Health Insurance Institute. "Take Stock of Your Assets." American Medical Association.
Consumer protection activities are provided by the government and professional organizations, commercial organizations, voluntary agencies, and individuals. 1. Governmental agencies a. Post Office Department b. Federal Trade Commission c. Food and Drug Administration 2. State agencies 3. Commercial organizations (Better Business Bureau) 4. Professional organizations a. Massachusetts Dental Society b. Massachusetts Medical Society 5. Voluntary agencies 6. Individuals a. Lawyers	1. Invite a lawyer to discuss state and local restrictions imposed upon solicitors and door-to-door salesmen. 2. Have the students arrange a display of materials made available from voluntary agencies.	*Book* Neal, Harry. *The Protectors: The Story of the Food and Drug Administration.* *Films* *Fraud Fighters.* McGraw-Hill Book Company. *The Medicine Man.* Local or State Medical Society. *Pamphlets* "Consumer Protection Under the Federal Food, Drug and Cosmetic Act." United States Department of Health, Education and Welfare. "Consumers' Council News." Consumers' Council. "How the Postal Inspection Service Protects You Against Mail Fraud." United States Post Office Department.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
b. Physicians c. Health Educators d. Nurses		"FDA Approval of New Drugs." Food and Drug Administration. "Mail Fraud." United States Post Office Department. *Transparencies* *Governmental Agencies and Health.* 3M Company.

Area IV **SAFE LIVING**

Field of Study SAFETY (Junior High)

Objectives

To help the student to:

1. Develop positive attitudes toward safety.
2. Be alert to safety hazards at home, in school, and in the community.
3. Develop increased consideration and responsibility for the safety of others.
4. React intelligently in the event of an emergency.

SAFETY (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Accidents are the chief cause of death among teen-agers. 1. Accidents caused by a. Carelessness b. Apathy c. Selfishness 2. Highway accidents due to a. Pedestrians b. Jaywalkers c. Drug abusers d. Alcohol abusers	1. Have the students discuss the saying "Accidents will happen." 2. Discuss how carelessness plays a role in accidents. 3. Make charts or transparencies using data from the pamphlet "Accident Facts." 4. Have the students arrange a bulletin board display of newspaper clippings on local accidents involving teen-agers. 5. Have the students analyze the possible cause and ways of preventing the accidents described in the clippings. 6. Obtain figures from insurance companies, showing the cost of accidents and compare the figures with expenditures for education and other vital needs. 7. Show the films *Dick Wakes Up* and *Dead Right.*	*Books* Byrd, Oliver E., *et al. Health* (7-8). Thackston, John A., and Newsom, William T. *Keeping Our Health.* Thackston, John A., and Newsom, William T. *Protecting Our Health.* *Films* *Alco Beat.* Massachusetts Safety Council. *Dead Right.* American Automobile Association. *Dick Wakes Up.* American Automobile Association. *Filmstrip* *Walk the Straight and Narrow.* Society for Visual Education, Inc. *Manual* *Manual of Pedestrian Safety.* American Automobile Association. *Pamphlets* "Accident Facts." (1970) Massachusetts Safety Council. "Falls." Massachusetts Safety Council. "Look Alive." United States Public Health Service. "Safety on Foot." Massachusetts Safety Council.
The human element is the most important factor in safe living. 1. Temperament (anger)	1. Invite a representative of an insurance company to discuss proneness and insurance risks. 2. Discuss the human factors which contribute to	*Books* Byrd, Oliver E., *et al. Health* (8). Byrd, Oliver E., *et al. Health Today and*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
2. Physical fitness 3. Immaturity 4. Poor judgment 5. Preoccupation 6. Use of drugs	accidents. Include inter-personal relationships, impulsive reactions, abuse of drugs, personal judgment. 3. Discuss why boys have a higher accident rate than girls.	*Tomorrow.* Diehl, Harold, *et al. Health and Safety for You.* Irwin, Leslie W., *et al. Patterns for Living.*
Current statistics indicate a need for concern and action.	4. Have the students discuss how safety can become a part of a person's value system. 5. Invite a psychologist to class to discuss the human element in safe living. 6. Have the students discuss how the body functions to help a person live safely. 7. Have the students compile national teen-age statistics on accidents and compare them with national adult statistics. 8. Have the students propose methods by which the number of accidents may be lowered.	*Pamphlet* "Accident Facts." Massachusetts Safety Council.
Safe living is dependent upon an awareness of environmental factors. 1. Weather conditions 2. Time factor 3. Social implications a. Family relationships b. Peer influence c. Adult examples	1. Organize a school safety squad and discuss the duties of the members. 2. Have the students explore the variety of factors which may have contributed to serious accidents (plane crash – result of weather, mechanical defect, or human failure). 3. Have interested students observe people for a period of time, noting the hazardous things they do. Have them record their findings.	*Books* Irwin, Leslie W., *et al. Foundations for Fitness.* Stack, Herbert and Elkow, J. Duke. *Education for Safe Living.* *Films* *Safe As You Know How.* Massachusetts Safety Council. *Safety Is in Order.* Massachusetts Safety Council.
Accident prevention is everyone's responsibility. 1. Recognition of causes essential 2. Home emergencies (falls, fires, etc.) 3. School (gymnasium, shop, laboratory, corridors)	1. Have the students discuss the consideration of others' safety. 2. Have the students discuss the location of fire extinguishers in the school building. Have a fireman demonstrate how to use an extinguisher.	*Books* Schneider, Robert E. *Health and Growth.* Yoho, Robert O. *Health for Today.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
4. Community a. Water recreational activities b. Camping activities (recreational areas, firearms) c. Automobile travel d. Public transportation 5. Teen-age jobs a. Baby-sitting b. Mowing lawns c. Using snow blowers 6. Farm safety (machinery) 7. Do it yourself projects 8. Situations involving the handicapped a. Partially blind b. Physically handicapped 9. Laws and regulations relating to safety	3. Conduct a school safety survey. List potential hazards and suggest ways to correct them. 4. Survey the hazards and safety problems in the community. 5. Provide opportunities for students to assist local recreation leaders in maintaining safe conditions at recreation centers. Conduct "fix-up" campaigns at local parks. 6. Have the students plan a community safety project. 7. Plan a trip to a marina to observe hazards. 8. Have the students take part in a panel discussion on safety in and on the water. 9. Have the students explore the current information available on the use of firearms and hunting precautions. 10. Discuss how such acts as placing objects on railroad tracks and throwing stones at cars and trains can endanger public safety. 11. Discuss why maturity in judgment is essential for every baby-sitter. 12. Have the students role play situations relating to safety which may occur while baby-sitting. 13. Develop a code for baby-sitters, relating to safety. 14. Survey hazards caused by machines and power devices. 15. Discuss new laws and regulations relating to snowmobiles. 16. Have several students do research on the laws relating to local school buses.	*Films* *Everything to Lose.* Massachusetts Safety Council. *The Little Things that Count.* Massachusetts Safety Council. *Pamphlets* "Bring 'em Back Alive." American Automobile Association. "Hazards of Discarded Iceboxes and Refrigerators." Massachusetts Safety Council. "How to Prevent Accidents in Your Home." National Research Bureau, Inc. "Safe Use of Electrical Equipment." National Committee on Safety Education. "Safety in the Farm Mechanic's Shop." Massachusetts Safety Council. "School Bus Safety Rules." Massachusetts Safety Council. "You're in Charge." Massachusetts Safety Council.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Safe behavior involves good health habits and responsible attitudes. 1. Fire drills 2. School traffic 3. Regulations in gymnasium 4. Regulations in shop and laboratory 5. Obeying traffic signs 6. Proper use of bicycles 7. Skillful performance in all activities	1. Have students accumulate data regarding national, state, and local accidents. 2. Discuss the cost of accidents. 3. Review school safety regulations. 4. Discuss places where accidents occur – home, school, highway.	*Book* Fait, Hollis F. *Health and Fitness for Modern Living* *Pamphlets* "Adult School Crossing Guards." American Automobile Association. "Perfections-Plus for Emergency Evacuation Drills." Massachusetts Safety Council. "School Fires." Massachusetts Safety Council.
Both danger and benefits may be derived from the same source. 1. Potential danger of equipment in school, home, and work 2. Frequent checking of equipment, tools, and apparatus essential	1. Invite a policeman, firefighter, or safety expert from an industrial plant to talk to the class on safety in his area. 2. Discuss how teen-agers can assist in making minor home repairs and improvements in order to prevent accidents. 3. Invite a home economics teacher to discuss safety problems in the kitchen.	*Pamphlets* "Bathroom Hazards." National Safety Council. "Fire – What Would You Do?" National Fire Protection Association. "Hand Tools." National Safety Council. "Lifting, Carrying, Lowering." National Safety Council. "Non-Electric Household Equipment." National Safety Council. "Safety in the Wood Shop." National Safety Council.
Development of self-reliance and self-discipline is necessary for reacting effectively in an emergency. 1. Knowledge of available help 2. Knowledge of when and where to call a physician or ambulance	1. Discuss reasons why people react differently under stress. 2. Discuss the importance of keeping away from the scene of an accident unless one can be of assistance.	*Pamphlet* "Emergency 77." Massachusetts Safety Council.

SENIOR HIGH

Area I PHYSICAL HEALTH

Field of Study NUTRITION

Objectives

To help the student to:

1. Become more knowledgeable about the interrelationship of nutrients.
2. Become aware that food influences all areas of the world.
3. Know that good nutrition may be achieved at low cost.
4. Understand the importance of the recent developments in food technology that should help to improve world food supply and distribution.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Body efficiency is maintained and improved by proper food consumption. 1. Nutrients a. Broken down in the body b. Used in the synthesis of essential substances 2. Metabolism (radical changes may hinder the absorption of nutrients in body)	1. Have the students report on the function nutrients play in the body systems (enzymes, co-enzymes, hemoglobin, and hormones) 2. Have a student report on phenylketonuria.	*Film* *The Human Body: Nutrition and Metabolism.* New England Dairy and Food Council. *Demonstration* *Animal Feeding Demonstrations.* New England Dairy and Food Council. *Pamphlet* "Choose Your Calories by the Company They Keep." New England Dairy and Food Council. *Transparencies* *Nutrient Chart Transparencies.* New England Dairy and Food Council.
Lack of nutrients and/or calories retards growth and development. 1. Normal body processes disrupted by lack of nutrients 2. Detrimental changes occur in body if deficiencies are prolonged	1. Compare the life span and development of people in the United States today to those of people living during the time of the Pilgrims. Include population, death rate, birth rate, and types of diseases. 2. Conduct animal experiments to show the effect of poor nutrition on growth and development.	
Nutrition quackery can be dangerous. 1. Vitamin pills a. Serve a limited purpose b. Not a cure–all for faulty nutrition 2. Nutrients (no one food available containing each) 3. Dietary inadequacies (may lead to physical and mental defects)	1. Discuss reducing diets and what dangers are involved with fad diets. 2. Make a poster of what is needed for a good reducing diet (three well-balanced meals, physical exercise, a good psychological attitude) 3. Report on the terms *over-nutrition, malnutrition, kwashiorkor.*	*Pamphlets* "Defense Against Quackery." American Medical Association. "Weight Control Source Book." New England Dairy and Food Council.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
All human beings need the same nutrients but in different amounts, according to age, sex, size, activity and health. 1. Adequate diet essential during final teen-age growth years. 2. Nutrition and weight control essential during pregnancy	1. Have the students discuss the final growth processes and the role nutrients play. 2. Have the students report on the effects of inadequate diet on the mother and fetus during pregnancy, on the new-born, and on the developing infant.	*Pamphlets* "What to Eat Before You Are Pregnant/While You Are Pregnant/After the Baby Comes." New England Dairy and Food Council.
The United States government is trying to improve the nutritional status of its people. 1. Eating habits of Americans a. Considered to be poor b. Diets lack basic needs 2. Education of citizens a. Critical need b. Many organizations involved, including federal government	1. Discuss the problems of obesity and underweight, and identify contributing factors. 2. Have leaders of organizations report on programs attempting to improve the nutritional status of Americans (Headstart, school lunch and breakfast programs, commodity food distribution).	*Pamphlet* "Weight Control Source Book." New England Dairy and Food Council.
In developing countries, poor nutrition is one of the major reasons for slow progress. 1. Nutritional status of people depends upon availability, quantity, and variety of foods 2. Progress of a country depends upon healthy man-power.	1. Have the students make graphs showing population and food production in developing countries of the world and compare these to the United States. 2. Discuss the nutritional diseases prevalent in developing countries and suggest ways they may be reduced.	*Book* Lowenberg, Miriam E., *et al. Food for Man.* *Film* *Food for Life.* New England Dairy and Food Council.
Many factors govern the way people eat. 1. Supply and demand determine eating habits 2. Physical, emotional, and environmental factors influence nutrition at all stages of development.	1. List factors which influence the price of a food item (transportation, seasonability, processing, packaging). 2. Discuss how food intake depends upon eating patterns, customs, environment, and knowledge. 3. Report on dietary restrictions of different	*Books* American Home Economics Association. *Family Holidays Around the World.* United States Department of Agriculture. *The Yearbook of Agriculture: Food for All of Us, 1969. Consumers All, 1965. Food, 1959.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
3. Level of nutrition correlates with education	ethnic and religious groups. 4. In cooperation with the Home Economics Department plan a holiday food-tasting party.	
The wise consumer is a discriminating shopper. 1. Processing of food results in higher prices 2. Seasonal food generally less expensive than out-of-season 3. Purchasing of food a. Less expensive in large supermarkets b. Price does not guarantee nutritious foods	1. Have the students make a calendar of foods in season for each month. 2. Have the students compare a convenience product such as a TV dinner with a similar meal prepared at home. 3. Have the students survey markets of various sizes and location and prepare a price list of similar staple items. 4. Have the students list protein foods which are less expensive than meat.	*Film* *More Food for Your Money.* New England Dairy and Food Council. *Pamphlet* "Food Consumption of Households in the United States." United States Department of Agriculture.
The food industry which is the largest industry in the world is important to the world's economy. *New foods are being produced to meet the world's growing population.*	1. Have the students do research on programs which are trying to improve world nutrition (WHO, UNICEF, FAO). 2. Have the students report on high protein foods (fish protein concentrate and soy bean products). 3. Have the students list the kinds of foods exported and imported by the major countries of the world. 4. Have the students list the industries which contribute to the food industry.	*Film* *Food for a Modern World.* Henk, Newenhouse. *Pamphlet* "Food Science and How It Began." New England Dairy and Food Council.
Regulations on the federal, state, and local levels govern food production and processing.	1. Invite state, federal, and/or local inspectors to discuss food protection procedures. 2. Plan a tour of a food processing plant to see how food is processed and what sanitation methods are being used. Have the students constructively criticize their observations.	*Film* *Meat on the Move.* Swift and Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	3. Using current news items, have the students investigate the use of pesticides. 4. List food additives and their purposes.	

Field of Study ALCOHOL (Senior High)

Objectives

To help the student to:

1. Understand the history of alcohol and its many uses.
2. Understand the scope of the problem of excessive drinking.
3. Recognize that there are responsibilities associated with the decision to use alcohol.
4. Recognize and evaluate the influence of the advertising media on the young buyer and his attitudes regarding the use of alcoholic beverages.
5. Understand alcoholism in today's society.
6. Develop an awareness of the preventive and corrective measures of coping with alcoholism.

ALCOHOL (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Alcohol has been used in a variety of ways throughout the ages. 1. Alcohol and drinking patterns. 2. Biological and psychological implications and moral issues 3. Alcohol and community health	1. Have the students do research on the history of the social usage of alcohol. 2. Study the history of Prohibition and evaluate the reasons for the repeal of the 18th Amendment. 3. In a class discussion, evaluate the social acceptance of alcoholic beverages. 4. Have the students do research to discover the relationship between the use of alcoholic beverages and public health problems 5. Provide the students with a list of personal psychological needs and discuss how they relate to the individual's decision to drink alcoholic beverages.	*Books* Carroll, Charles R. *Alcohol: Use, Nonuse and Abuse.* Lolli, Giorgio. *Social Drinking.* McCarthy, Raymond G. *Facts About Alcohol.* *Film* *To Your Health.* Center for Massachusetts Communications. *Pamphlet* "Thinking About Drinking." Massachusetts Department of Public Health
When alcohol is misused, many problems may develop. 1. Increasing percentage of Americans using alcohol 2. Problem drinkers a. Increase in numbers b. Geographical distribution c. Ethnic groups 3. Trends in alcoholism rates a. Current research b. Treatment rate increasing with new procedures. 4. Alcoholism and home accidents 5. Excessive drinking and highway safety 6. Excessive drinking and industry a. Lost man-hours	1. Study the current problem of the consumption of alcoholic beverages at the state level. 2. Discuss the trends of usage according to sex. 3. Discuss the increase in the consumption of alcoholic beverages since the turn of the century. 4. After doing research, have the students discuss the statement "At least one student in every classroom is a potential alcoholic." 5. Have the students obtain facts relating home accidents to excessive drinking. 6. Have a few students obtain facts relating to the alcohol user and the alcoholic and the problems facing them when purchasing life insurance. 7. Invite a representative from the safety division of a local industrial firm to speak on industrial problems created by excessive drinking.	*Books* Bogue, Donald. *Skid Row in American Cities.* McCarthy, Raymond, *Alcohol Education for Classroom and Community.* Shevlin, Julius B., and Goldberg, Isidor H. *Facts About Alcohol: A Programmed Unit.* *Pamphlet* *"Alcoholism in Massachusetts."* Division of Alcoholism. Massachusetts Dept. of Public Health. *Pamphlets* "Alcoholism: A Family Guide to Understanding the Illness and What to Do About It." Massachusetts Department of Public Health. "Hangover Losses." National Council on

Concepts and Primary Concerns	Sample Learning Experiences	Resources
b. Cost factor to industry 7. Crime and alcohol relationship 8. Alcoholism and deaths (life expectancy decreased) 9. Alcoholic parent a. Cost in human suffering b. Disruption of family unit 10. Public welfare (problem drinker may become dependent upon society)	8. Invite a Juvenile Officer from the local Police Department to speak about "Youth, Crime, and Alcohol." 9. Have a group of students visit a session of the Juvenile Court and observe the number of cases which involve the use of alcohol. Prepare a report to present to the class for discussion. 10. Have the students write reports, comparing local and national death rates due to alcoholism. 11. Have the students discuss the problems of the alcoholic parent and the child in the home. 12. Have several students interview a lawyer or judge to find out how the misuse of alcohol contributes to divorce, broken homes, and problem children. Discuss the social implications. 13. Obtain facts from the Department of Public Health, Division of Alcoholism on the relationship between alcoholism and the welfare status of individuals.	Alcoholism, Inc. "Health Education Through a Council on Alcoholism." National Council on Alcoholism, Inc. "The Hospital's Place in a Program of Alcoholism." of Alcoholism." National Council on Alcoholism, Inc. "Recent Findings Regarding Alcoholism in Industry." National Council on Alcoholism, Inc. "The Social Agencies' Responsibility in the Alcoholism Program." National Council on Alcoholism, Inc.
The decision to drink, whether excessively or moderately, is an individual responsibility. 1. Responsibility of the teen-ager a. To himself b. To peers c. To Family 2. Responsibility of the parent a. Setting an example b. Helping with decisions c. Family finances affect decision making 3. Responsibility of host or hostess (respecting decisions of others to drink or abstain)	1. Have the students debate the question of whether or not teen-agers should be permitted to drink in the home. 2. Discuss the individual's privilege to refuse a drink without feeling alienated from others. 3. Discuss the topic "Problem drinking and family membership appear to be incompatible." 4. List and discuss problems affecting a family if one member drinks heavily. 5. Discuss the problems encountered within the family when more of the family budget is spent on the purchase of alcoholic beverages	*Books* Al-Anon Family Group Headquarters. *Living with an Alcoholic.* Cain, Arthur. *Young People and Drinking.* Life, John R. *Concepts in Health, Course Four.* Pittman, David, and Snyder, Charles R. *Society, Culture and Drinking Patterns.* *Films* *I Never Looked at It that Way Before.* Massachusetts Medical Society.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
4. Responsiblity as operator of a vehicle (traffic fatalities and offenses directly related to use of alcohol) 5. Sound decision-making vital	rather than basic needs. 6. Have the students role play the planning of a party wherein some friends elect to drink alcoholic beverages and some friends abstain. 7. Show and discuss the film *I Never Looked at It that Way Before.*	*Understanding Stresses and Strains.* Walt Disney Productions.
Advertising greatly influences the young buyer in today's society. 1. Television 2. Radio 3. Newspaper 4. Magazines 5. Other media	1. Have the students survey and evaluate techniques used by advertisers in influencing people to drink. 2. Plan a class project to take pictures of local liquor advertisements. Discuss the techniques used by the advertisers. 3. Have some students do research on the amount of money spent on advertising alcoholic beverages. Compare this expenditure to expenditures for some of the necessities of life. 4. Have a committee of students collect clippings and advertisements from newspapers and magazines which relate to the use of alcohol. Make a bulletin-board display of the materials.	
Alcoholism is now recognized as a disease, and rehabilitation of the alcoholic involves many people. *Physiological, psychological, and sociological factors surround the disease.* 1. Warning signs a. Drinking to face up to situations b. Solitary drinking c. Early morning drinking d. Individual variations 2. Treatment of alcoholism	1. Have the students discuss the question "Are alcoholics born or are they made by the environment?" 2. Classify each of the various symptoms of alcoholism into physiological, psychological, or sociological categories. Discuss the interrelationships. 3. Have two students visit an alcohol rehabilitation center and report their findings to the class. 4. Have the students investigate what is being	*Books* Chafetz, Morris E., and Demone, Harold W., Jr. *Alcoholism and Society.* Jellinek, E.M. *The Disease Concept of Alcoholism.* Keller, Mark and McCormick, Mairi. *A Dictionary of Words About Alcohol.* Ullman, Albert. *To Know the Difference.* Williams, Lincoln. *Tomorrow Will Be Sober.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
a. Improvement of living habits (better nutrition, exercise, and activities) b. Drug therapy c. Psychotherapy d. Individual and group therapy 3. Industrial programs for employees	done in Massachusetts to help the alcoholic and his family. 5. Prepare a bibliography of books, pamphlets, and articles on alcohol and alcoholism which are available in the community for the adult reader. 6. Provide an opportunity for a few students to visit an open meeting of Alcoholics Anonymous or other such organization. Have them report their findings to the class. 7. Research those agencies in the community which offer aid, advice, and information to those who have alcohol-related problems.	*Film* *Tobacco and Alcohol: The $50,000 Habit.* Massachusetts Medical Society. *Filmstrip* *Alcohol and Your Health.* Society for Visual Education. *Pamphlets* "Alcoholism. A Problem in Environment." National Council of Alcoholism, Inc. "Thirteen Steps to Alcoholism." National Council on Alcoholism, Inc. "This Is AA." Alcoholics Anonymous Publishing, Inc. "What Everyone Should Know About Alcoholism." Channing L. Bete Company. "Youth and the Alcoholic Parent." Al-Anon Family Group Headquarters, Inc. *Transparencies* "*Alcohol: Use and Misuse.* 3M Company.
Awareness and understanding of alcoholism and concern for the alcoholic will assist in preventing increased problems in the community. 1. Identification of the problem 2. Preventive measures a. Education (school, community) b. Research (laboratory, clinic) c. Legislation (federal, state, local)	1. Have the students discuss the following: "Alcohol is socially and legally accepted, drugs are not." 2. Discuss the significance of prevention in assisting with problems related to alcohol. 3. Have some interested students report to the class findings of some current laboratory and clinical research on alcoholism. 4. As a class project, make posters depicting cautions, dangers, and preventive aspects of the alcohol problem.	*Book* Pittman, David, and Snyder, Charles. *Society, Culture and Drinking Patterns.* *Pamphlets* "Alcohol and Alcoholism." United States Department of Health, Education and Welfare. "Alcoholism in Massachusetts." Massachusetts Department of Public Health.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	5. Discuss and list examples of felonies, misdemeanors, and minor offenses, resulting from excessive use of alcohol. 6. Discuss local liquor control laws. 7. Have the students obtain for class discussion the local regulations on alcohol and alcohol-related problems. 8. Study the state laws pertaining to drinking and driving and discuss how they might be improved to be more effective. 9. Have a debate on the question of lowering the legal age in Massachusetts for drinking alcoholic beverages. 10. Arrange for students to observe a court case dealing with an alcohol-related offense. 11. Have a police officer or lawyer visit and discuss the "implied consent" law with the students. 12. Have the students write their impressions of a story concerned with the alcoholic and his problems. Some examples of stories are: (1) *No Hiding Place,* by Beth Day. (2) *Come Back Little Sheba,* by William Inge. (3) *The Lost Weekend,* by Charles Jackson.	"Questions and Answers about Chemical Testing of Intoxicated Drivers." Massachsuetts Department of Public Health, Division of Alcoholism. "The New Law on Drinking and Driving." Massachusetts Registry of Motor Vehicles. *Transparencies* *Alcohol Level III.* D.C.A. Educational Products, Inc.

Field of Study DRUGS (Senior High)

Objectives

To help the student to:

1. Become aware of the total drug problem in today's world.
2. Understand the nature of various drugs and their effects upon the body.
3. Become acquainted with the scope of society's attempt to place drug use in its proper perspective.
4. Develop an understanding of the drug user along with the individual's and community's responsibility in seeking solutions to the drug problem.

DRUGS (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Drug use has become a major problem in today's society. 1. Contribution of modern drugs a. Prevent and control disease b. Control inflammatory reactions c. Relieve pain d. Modify moods e. Control allergic reactions 2. Prescription drugs a. Dunham-Humphrey Amendment (Foods, Drug and Cosmetic Act) b. Drug Abuse Control Amendments c. Physician's responsibility d. Individual's responsibility 3. Non-prescription drugs a. Warning on labels b. Deleterious effects c. Indiscriminate use of aspirin d. Self-medication e. Effects of combining drugs (synergistic effects)	1. Provide a question box so that students may submit questions they may not wish to ask during class time. 2. Have individual students obtain free materials on drugs from local, state, and federal organizations. 3. Have the students seek information from the local or Massachusetts Medical Society as to the beneficial uses of drugs. 4. Invite the school medical advisor to discuss the importance of drugs in today's world. 5. Show the students "facsimile drugs" so that they will know the characteristic shape, color, and size of the various drugs. 6. Have the students discuss the individual's responsibility in self-medication. 7. Invite the local pharmacist to discuss the extent of the use of non-prescription drugs by the members of the community. 8. Have the students analyze the various warning lablels on drug containers. 9. Discuss the difference between occasional use of drugs and self-medication. 10. Discuss the potential hazards involved in exchanging prescription medicines.	*Books* American Medical Association. *Drug Dependence – A Guide for Physicians.* American School Health Association. *Teaching About Drugs.* Kaplan, Robert. *Drug Abuse – Perspective on Drugs.* *Filmstrip* *RX – Not for Kicks.* Society For Visual Education. *Pamphlets* "A Doctor Discusses Narcotics and Drug Addiction." Budlong Press Company. "Medicines and How to Use Them." American Medical Association. "Resource Book for Drug Abuse Education." United States Department of Health, Education and Welfare. *Teaching Aids* Winston Products for Education.
Drugs effect the body in a variety of ways. 1. Narcotics a. Opiates and their compounds (common types – morphine, heroin, codeine, etc.) b. Synthetic products (e.g., meperidine, methadone, etc.)	1. Review the classifications of drugs and the effects upon the body. 2. Have students review newspaper articles that show the relation between the use of narcotics and the effects upon the body. 3. Discuss the withdrawal symptoms of the	*Article* "Students and Drug Abuse." Reprint. United States Department of Health, Education and Welfare.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
c. Effects on the user (1) Health endangered (2) Accident prone (3) Physiological and psychological dependence 2. Depressants a. Barbiturates – "barbs," "goofballs" (e.g., amytal, barbital, luminal, seconal, tuinal, etc.) b. Effects on user (1) Depresses central nervous system (2) Develops physiological and psychological dependence with long use and excessive dosage. (3) Can terminate in death from overdose. (4) May result in development of tolerance (5) Produces pain and extensive withdrawal problems 3. Tranquilizers ("peace of mind") a. Major – Those with antipsychotic activity (e.g., phenothiazine, reserpine) b. Minor – those used as muscle relaxants and in treating emotional disorders such as anxiety and tension (e.g., meprobamate, etc.) c. Effects on user (results in convulsions with chronic use if withdrawn) 4. Stimulants a. Caffeine (e.g., cola and coffee) b. Cocaine – "snow" legally classified as a narcotic (1) Produces sense of euphoria (2) Dilates the pupils (3) Increases heart beat	heroin user. 4. Request a *rehabilitated* drug user to present his *firsthand* experiences of using narcotics and/or other drugs to the class. 5. Invite students from the Massachusetts College of Pharmacy to visit the class and discuss drugs and drug misuse. 6. Discuss the harmful effects of prolonged misuse of drugs. 7. Write to the Massachusetts Safety Council for accident facts related to the use of drugs. 8. Obtain a copy of the recent annual report of the Massachusetts Drug Addiction Rehabilitation Board on cases reported last year. Have the students discuss some of the cases. 9. Have a physician visit and discuss the reasons why he prescribes barbiturates. 10. Discuss what happens when barbiturates and alcohol are combined (synergistic effects). 11. Discuss the means of identifying an individual who is under the effects of an hallucinogen. 12. Encourage research on the effects of marijuana usage in today's society. 13. Burn "marijuana awareness wafers" to familiarize the students with the odor of marijuana. 14. Read the Boston Globe reprints of Marijuana Trial and the Tauro Decision. 15. Have students do research on the action taken by leaders in the State on the legal status of marijuana use, and report to the class. 16. Discuss the responsibility of adults in keeping	*Books* Curtis, Lindsay R. *Glue Sniffing: Big Trouble in a Tube.* Curtis, Lindsay R. *LSD – Trip or Trap?* Curtis, Lindsay R. *Let's Talk About Goofballs and Pep Pills.* Modell, Lansing. *Drugs.* Van Dyke, Henry Thomas. *Youth and the Drug Problem.* *Film* *LSD Insight or Insanity.* Massachusetts Department of Education. *Pamphlets* "Annotated Bibliography of Literature on Narcotic Addiction." Narcotics Addiction Control Commission. "Before Your Kid Tries Drugs." United States Department of Health, Education and Welfare. "Drug Abuse: Escape to Nowhere." Smith, Kline and French Laboratories. "The Drug Experience: Data for Decision-Making." City Schools Curriculum Service. "Facts About Narcotics and Other Dangerous Drugs." Science Research Associates. "Glue Sniffing." American Medical Association. "LSD." United States Department of Health, Education and Welfare. "LSD: The False Illusion." Food and Drug Administration.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
(4) Elevates blood pressure (5) Leads to psychological dependence and potential depression of respiracenter	harmful substances out the reach of children.	"Marijuana." United States Department of Health, Education and Welfare. "Narcotics." United States Department of Health, Education and Welfare.
c. Amphetamines – pep pills, jelly beans (1) Used in obesity problems (2) Used in treating mild depression d. Effects on user (1) High blood pressure (2) Potential psychological dependence (3) Anxiety and psychotic aberrations		"Recent Research on Narcotics, LSD, Marijuana and Other Dangerous Drugs." United States Department of Health, Education and Welfare. "The Up and Down Drug." United States Department of Health, Education and Welfare.
5. Hallucinogens – psychedelic or mind altering (e.g., mescaline, psilocybin, DMT, STP, DOM, DET, etc.) a. LSD – lysergic acid diethyaminde "acid" b. Effects on user (1) Potential illusion, confusion, disorientation, hallucination, lowered body temperature (2) May result in psychological dependence, possible chromosomal damage, psychotic reaction (3) Hazardous for women in child-bearing ages		"What About Marijuana." Public Affairs Pamphlet. *Source Book.* United States Department of Health, Education and Welfare. *A Federal Source Book Answers to the Most Frequently Asked Questions About Drugs.*
6. Marijuana a. Reportedly may give a feeling of euphoria b. Possibly distorts senses of time, distance, vision, and hearing under certain dose levels of the active ingredient. NOTE: Cannabis is thought to have several active ingredients. T.H.C. (tetrahydrocannabinol) is the active chemical which has been isolated. c. Does not experimentally appear to produce physical dependence d. Does produce a strong psychic dependence		

Concepts and Primary Concerns	Sample Learning Experiences	Resources
7. Volatile solvents and other harmful substances (e.g., glue, gasoline, paint thinner, lighter fluid, cleaning compounds, aerosols, certain foods, morning glory seeds, etc.) a. Effects on user (1) Extremely dangerous and can be fatal (2) Can produce tolerance and psychological dependency (3) Can produce brain damage and kidney and liver cell destruction (4) Can impede blood cell production		
Today's drug-oriented society is experiencing new social problems. 1. Increase in drug use over the last ten years a. Teen-agers b. "Social" groups c. "Insight" groups for psychedelic experiences 2. Widespread social acceptance of the use of drugs a. Appetite control b. Minor aches and pains c. A "crutch" to cope with daily pressures 3. Continuing loss of employment with drug-oriented individuals 4. Increase in motor vehicle accident rates with increasing drug use by drivers 5. Family members often affected a. Economic loss b. Emotional trauma 6. Drug abuse – a public health problem	1. Divide the class into groups to trace the history of drug uses and abuses through the ages. Groups may be assigned study on the basis of historical periods (Colonial period, Civil War period) or geographical areas (China, Latin America, Southeast Asia). Reports should include such information as names of drugs and their sources, dates of discovery, uses and misuses, and related societal problems. 2. Analyze the term *social acceptance* and evaluate its importance as a motivator of behavior. 3. Discuss the types of everyday pressures that cause individuals to seek drugs as a crutch. 4. Have the class identify five social problems, including the misuse of drugs. Discuss these problems in terms of: (1) What constitutes a social problem. (2) Why social problems are difficult to solve. (3) How to go about solving social problems realistically.	*Article* "Drugs in Our Society." *Harvard Medical Alumni Bulletin.* September - October, 1969. *Books* Blaine, Graham. *Youth and the Hazards of Affluence.* Kaplan, Robert. *Drug Abuse: Perspectives on Drugs.* Massachusetts Department of Mental Health, Division of Drug Rehabilitation. *Arlington Drug Study.* Nowlis, Helen H. *Drugs on the College Campus: A Guide for College Administrators.* *Pamphlet* "The Drug Takers." *Time-Life* Special Report, 1965.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
a. A chronic disease leaving some disability or handicap b. Communicable – spreads as a process of social contagion	5. Discuss the serious effects on the family unit when a member is using drugs regularly. 6. Discuss the school-dropout rate in relation to the use of drugs.	
7. Environment plays a critical role a. Proximity of sources (e.g., drugstores, hospitals, laboratories, warehouses, etc.) b. Urban settings c. War, hyprocrisy, and other social phenomena	7. Have the students study the medical care needed in assisting the drug user. 8. Utilize rehabilitated drug users to stimulate classroom dialogue relevant to treatment and rehabilitation "after the fact." 9. Discuss the relationship between drug abuse and one's environment.	
Drug substances can have an unpredictable effect upon the emotions and behavior of the user. Reasons for use a. Social pressure b. Curiosity c. Escape d. Inadequate personality e. Existing neurosis f. Existing psychosis	1. Discuss with the students the reasons for using drugs.	*Pamphlet* "The Crutch that Cripples: Drug Dependence." American Medical Association.
A better understanding of the legal aspects of drug use and abuse will assist students in decision-making about drugs. 1. Federal action on drugs a. Early legislation (1) Harrison Act (2) Marihuana Tax Act (3) Narcotic Control Act b. Federal agencies (1) Food and Drug Administration (controls quality of drug production)	1. Have interested students explore past and pending legislation on drug-related areas. 2. Have some students obtain information from the state pharmaceutical association on the law controlling prescription drugs. 3. Divide the class members into committees and ask them to identify the responsibilities of high school students in preventing the spread of drug habituation and addiction. Ask the groups to suggest measures including needed legislation to curb the problem of drug abuse.	*Manual* *Drug Abuse: A Manual for Law Enforcement Officers.* Smith, Kline and French Laboratories. *Pamphlets* "Federal and Massachusetts Drug Laws." Massachusetts Department of Education. "School Drug Policies – A Guide for Administrators." Masssachusetts Department of Education.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
(2) Bureau of Narcotics and Dangerous Drugs (enforces the Harrison Narcotic Law and Amendments) (3) United States Post Office (prevents fraudulent use of the mails) (4) Federal Trade Commission (regulates over-the-counter products) (5) Bureau of Customs (curtails illegal entry of drugs) (6) Federal Communication Commission (controls drug advertising through mass media) 2. State action on drugs a. Early legislation b. Current legislation 3. Law enforcement of drug use and abuse 4. Development of school drug policies and procedures	4. Have a local pharmacist visit the class to discuss controls on filling prescriptions including the reasons for these controls.	
The treatment and rehabilitation of drug dependents is the responsibility of every individual. 1. Identification a. Visual medical symptoms b. Behavioral symptoms 2. Hospitalization a. Out-patient clinics b. Public health facilities c. Mental health facilities 3. Narcotics Anonymous 4. Synanon 5. Resident treatment programs	1. Discuss and role play the responsibility of a student to help his friend who is using drugs. 2. Provide an opportunity for the students to visit treatment and/or rehabilitation centers. 3. Invite a social worker or an administrator to discuss the treatment and rehabilitation of drug users.	*Pamphlets* "Drug Abuse: Community Action Guide." Smith, Kline and French Laboratories. "The Narcotic Addict." United States Department of Health, Education and Welfare. "Rehabilitation Act of 1966." United States Department of Health, Education and Welfare.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
6. Other therapy centers – Odyssey House, Turnabout, Place, etc. 7. School Counseling Service		
Drug abuse prevention is essential. 1. Educating students and adults 2. Parental responsibilities a. Helping children to develop positive attitudes and desirable practices b. Parents as exemplars 3. Community involvement (schools, community agencies, law enforcement authorities, etc.) 4. Government control	1. Discuss the importance of parents and other adults setting examples for children. Establish a committee of students, administrators, faculty members, parents, and community members to evaluate and assist in solving the local drug problem (community Health Council). 2. Discuss how society can cope with the pressures of day-to-day living without using drugs as a crutch. 3. Assign interested students to write an article for the local paper on contributions made by individuals in drug abuse prevention.	*Pamphlet* "Suggested Approaches in Drug Education." Massachusetts Department of Education.
Maintenance of good health is obtained through a balance of physical, intellectual, emotional, and social developments.	4. Discuss how an imbalance of physical, intellectual, emotional and social development may create personal health problems.	

Area II MENTAL AND SOCIAL HEALTH

Field of Study EMOTIONAL DEVELOPMENT (Senior High)

Objectives

To help the student to:

1. Obtain a better understanding and acceptance of himself.
2. Further develop his ability to control his reactions to life situations.
3. Appreciate his role and the role of society in providing a desirable environment for maintaining good mental health.

EMOTIONAL DEVELOPMENT (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Good mental health helps maintain one's physical health and social effectiveness. 1. The central nervous system a. Center of organic functions b. Bodily processes influenced (1) Digestion (2) Skin reactions (3) Heart action 2. The endocrine system a. Effects on emotions b. Anxieties can hinder normal body functions c. Possible effects on digestion and skin 3. Good physical health (contributes to good mental health) 4. Desirable personality characteristics (based on a feeling of well-being) 5. Personality development (follows fairly consistent patterns) 6. Patterns (reflect the interplay of positive and negative emotions) 7. Physical characteristics 8. Behavioral characteristics 9. Character traits 10. Motivation and drive (add to intellectual efficiency) 11. Social functioning 12. Social forces (affect an individual's mental health)	1. Have the students discuss the meaning of mental health. 2. Have a group of students do research on the interrelatedness of good physical and good mental health. 3. Have each student write a brief paper on physical activity as an emotional safety valve. 4. Discuss the fact that it is normal for everyone to experience poor mental health at some time. Have the students give examples. 5. Discuss the difference between an organic and a functional disease. 6. Discuss the relationships between emotions and underweight and overweight. 7. Have the students find news articles which describe super-human feats performed by an individual during an emotional crisis. 8. Invite a psychiatrist to class to discuss the interrelationship of the nervous system, the endocrine system, emotions, and body functions. 9. Have the students discuss the proverb "As the twig is bent, so the tree inclines." 10. Discuss the relationship of physical characteristics to personality development.	*Books* Barton, Helen B. *Nervous Tension, Behavior and Body Functions.* Crawford, John E. *Better Ways of Growing Up.* Diehl, Harold S., *et al. Health and Safety for You.* Groch, Judith. *You and Your Brain.* Kahn, Fritz. *The Human Body.* Morgan, Clifford T. *Introduction to Psychology.* Nourse, Alan E. *The Body.* Reik, Theodor. *Curiosities of the Self.* Roam, Pearl. *A Book About You.* Strecker, Edward A. and Appel, Kenneth. *Discovering Ourselves.* Van Dyke, Vonda Kay. *That Girl in Your Mirror.*
Emotions are the motivators in human behavior.	1. Discuss various emotions and have the students	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
1. Stages of development 2. Identification 3. Development and control a. Serve a useful purpose b. May be detrimental	identify with experiences which involved specific emotions. 2. Have the students discuss the characteristics of the emotionally mature person and the characteristics of the emotionally immature person. 3. Have the students observe friends and relatives and note those who meet emotional stress with calm and controlled behavior. 4. Discuss how anxiety can sometimes be used to serve a useful purpose. 5. Have each student keep a diary for a week, noting the times that he displays a lack of emotional control. The diary can serve as a basis for self-evaluation.	*Books* Bonney, Merl E. *Mental Health in Education.* Coleman, James C. *Abnormal Psychology and Modern Life.* Ewalt, Jack R., and Farnsworth, Dana L. *Textbook of Psychiatry.* Menninger, Karl. *Man Against Himself.* Otto, James H., *et al. Modern Health.*
Health attitudes towards oneself are basic to good mental health. 1. Self-acceptance a. Insight into personal motives and desires b. Recognition of personal strengths and weaknesses 2. Self-confidence a. Knows own limitations b. Feels capable of meeting demands of daily life 3. Self-respect a. Respects oneself b. Creates and sets own values for life 4. Self-actualization (works for a cause greater than himself)	1. Have the students define the term *motivation* and discuss its relevance in determining behavior. 2. Have each student write a paper describing his own self-image. 3. Have each student write attainable goals which he may work toward for a period of one year. 4. Have the students work in committees and develop suggestions for a good personal mental health program. The suggestions can include accepting criticism impersonally and profiting by it, finding moments to relax completely each day, and getting along with others.	*Book* Jones, Kenneth, *et al. Emotional and Neurological Health.* *Film* *Emotional Health.* McGraw-Hill Book Company. *Pamphlet* "Mental Health." Channing Bete Company.
Various factors influence personality development.	1. Have the students discuss the term *personality.* Then ask each one to write his own definition.	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
1. Appearance 2. Good physical health 3. The mind a. The id b. The ego c. The superego 4. Mental mechanisms a. Repression b. Rationalization c. Regression d. Projection e. Fantasy and daydreaming f. Conversion 5. Heredity affects personality 6. Environment affects personality a. Socio-economic position of family b. Educational background of parents c. Family income d. Type of home e. Type of neighborhood f. Ethnic background 7. Personality needs of the adolescent a. Love b. Recognition c. Independence d. Goals e. Values and ideals f. Responsibility	2. Have some students act as roving reporters and question the others about "identifying personality, changing personality," etc. Have them report to the class. 3. List a number of defense mechanisms on the chalkboard and discuss how the use of mental mechanisms affect defensive behavior. 4. Discuss how the overuse of mental mechanisms may lead to mental illness. 5. Describe to the class a number of situations in which defense mechanisms were utilized. Have the students identify and critique these defense mechanisms. 6. Discuss the statement "The civilized countries of the world lead all others in suicide, insanity, delinquency, crime, divorce, and alcoholism. 7. Establish committees and have each committee discuss one of the personality needs of the adolescent. Have one member of the group report conclusions to the class and permit the class to participate in a final summary.	*Books* Bailard, Virginia, and Strang, Ruth. *Ways to Improve Your Personality.* Engle, T.L. *Psychology.* Fait, Hollis F. *Health and Fitness for Modern Living.* Menninger, W. *How to Be a Successful Teen-ager.* Newton, Roy, and Green, H.H. *How to Improve Your Personality.* Steiner, Heiri, and Gebser, Jean. *Anxiety – A Condition of Modern Man.* Strecker, Edward A., and Appel, Kenneth. *Discovering Ourselves.*
A balance of dependence and independence is valuable. 1. Dependency a part of living a. Dependency upon individuals and environment	1. Discuss life situations which require dependence on other family members. 2. Discuss situations which call for an individual to make critical decisions. 3. Have the students distinguish between the terms *neuroses* and *psychoses.*	*Books* Gmur, B.C., *et al. Making Health Decisions.* Hein, Fred V., and Farnsworth, Dana L. *Living.* Lehner, George F., and Kube, Ella. *The Dynamics of Personal Adjustment.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
b. Conformity to some aspects of society 2. Independence-autonomy a. Valuable for good mental health b. Permits individual to control decisions and events of his own life *Inability to cope with problems can result in the breakdown of a person's mental defenses.* 1. Psychosamatic reactions 2. Psychoses 3. Neuroses	4. Discuss ways of helping a classmate who shows signs of distress or depression or talks of suicide. 5. Discuss some common problems which contribute to poor mental health (pressure of making grades, lack of a definite choice of a career, unwise spending of funds). 6. Organize the class into groups to study various ways to seek solutions to teen-age problems. 7. Have the students discuss the "mind-body relationships."	Otto, James H., *et al. Modern Health.* *Films* *Control Your Emotions.* Coronet Films. *Personality and Emotions.* Encyclopaedia Britannica Educational Corp. *Steps Toward Maturity and Health.* Massachusetts Department of Education. *Pamphlets* "Tensions and How to Master Them." Public Affairs Committee Headquarters, Inc. "Toward Mental Health." Public Affairs Committee Headquarters, Inc.
Social interaction is the ultimate goal of good mental health. 1. Home and family a. Harmonious relationships b. Genuine affection for one another c. Consistent, firm discipline d. Participation in responsible activities e. Place for friends to socialize 2. School a. Fostering feeling of personal worth b. Providing experiences to develop social competence c. Providing opportunities for performance of purposeful tasks	1. Plan a discussion of the importance of the home in developing good mental health. 2. Have a committee make a list of experiences in the home which contribute to good mental health. Another committee can list experiences which contribute to poor mental health. 3. Have the students discuss, from their personal experiences, ways in which schools can contribute to good mental health and ways in which schools can contribute to poor mental health.	*Books* Lawrence, Thomas C., *et al. Your Health and Safety.* Maslow, Abraham H. *Toward a Psychology of Being.* Wilson, John R. *The Mind.* *Pamphlets* "Facts About Mental Illness." National Association for Mental Health. "How to Deal with Mental Problems." National Association for Mental Health.
The community is an important factor in good mental health. 1. Creates favorable or unfavorable environment	1. Have a committee of students survey the community and make an inventory of mental health needs. Have them identify available mental health resources.	*Books* Bonney, Merl E. *Mental Health in Education.* Gallagher, J.R., *et al. Health for Life.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
2. Environmental deprivation can contribute to mental health problems	2. Have a student report on occupational therapy used in hospitals and nursing homes.	Lehner, George F., and Kube, Ella. *The Dynamics of Personal Adjustments.*
3. Provides for citizen participation in a variety of activities		
Reliable assistance is available for those with emotional problems. 1. Private physician 2. Psychiatrist 3. Community mental health centers 4. Mental hospitals 5. Professional therapy a. Psychotherapy (1) Individual (2) Group b. Recreational therapy c. Occupational therapy d. Drug therapy e. Shock therapy f. Psychoanalysis	1. Invite a professional from a nearby community mental health center to visit the class and discuss the work of the center. 2. Have a few interested students visit some mental health agencies and/or community organizations. Have the students report on opportunities for volunteer work with such organizations. 3. Invite a member of the guidance department to tell the class where individuals with mental health problems may seek assistance. 4. Have a committee seek information about the various agencies in the community which can assist individuals with emotional problems. 5. Have the students seek information on recent laws and regulations concerning mental health.	*Books* Dubos, Rene. *Health and Disease.* Grant, Vernon W. *This Is Mental Illness.* Haag, Jessie. *Health Education for Young Adults.*

Area II MENTAL AND SOCIAL HEALTH

Field of Study TOBACCO (Senior High)

Objectives

To help the student to:

1. Become familiar with scientific information concerning smoking and its effect upon the individual.
2. Understand the variety of reasons why people smoke.
3. Evaluate the effect of advertising and other pressures.
4. Accept the responsibility for improving and safeguarding his health and environment.

206

TOBACCO (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
There is sufficient evidence today to substantiate a definte relationship between smoking and health. 1. Animal experiments 2. Clinical and autopsy studies 3. Population studies	1. Obtain copies of the Surgeon General's Report and assign sections to groups for class reports.	*Book* United States Department of Health Education and Welfare. *Smoking and Health.* *Pamphlets* "Breathing – What You Need To Know." Local Tuberculosis and Respiratory Disease Association. "Smoking, Health and You." Public Health Service. United States Department of Health, Education and Welfare.
Smoking may interfere with the normal functioning of the bodily processes, presenting a danger to physical health. 1. Digestive system 2. Taste and digestion 3. Chronic digestive disturbances a. Peptic ulcer b. Duodenal ulcer c. Cancer of the mouth, stomach, esophagus, etc. 4. Nervous system a. Stimulation b. Depression 5. Respiratory system (effect on mucous membranes) 6. Emphysema and bronchitis 7. Circulatory system a. Increase in heart rate and blood pressure	1. Organize the students into committees. Provide each committee with resource material on smoking and health. Have each committee do research on the effects of smoking on various organs of the body. 2. Show the film *Tobacco and the Human Body.* Discuss the effect of tobacco on the various organs of the body. 3. Discuss the fact that cigarette smokers experience ulcers more frequently than non-smokers. 4. Show the film *Smoking and You.* Discuss the effects of smoking on the lungs and its relationship to chronic bronchitis and heart disease. 5. The effects of smoking on blood circulation can be tested with a clinical thermometer. Have a non-smoker or someone who has not smoked for several hours hold the thermometer. Then have a smoker hold the thermometer. Smokers show a drop of 6° or more (even with filter	*Books* Brownell, Clifford L. *et al. High School Health Science.* Byrd, Oliver E., *et al. Health Today and Tomorrow.* Fait, Hollis. *Health and Fitness for Modern Living.* United States Department of Health, Education and Welfare. *The Health Consequences of Smoking.* *Films* *Beyond Reasonable Doubt.* Narcotics Education, Inc. *Cancer by the Carton.* Narcotics Education, Inc. *The Embattled Cell.* Local Cancer Society. *One in 20,000.* Narcotics Education, Inc. *Smoking and You.* Local Heart Association. *Tobacco and the Human Body.* Encyclopaedia Britannica Educational Corp.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
b. Blood clots and strokes c. Coronary heart disease d. Buergers disease 8. Urogenital system a. Cancer of the bladder b. Effects on pregnancy (higher incidence of spontaneous abortions and premature births) c. Effects on child	cigarettes). 6. Demonstrate the use of *The Mechanical Smoker.* 7. Show the film *The Embattled Cell.* Discuss the content of the film, particularly the behavior of living cells and the results that may occur when cells are affected by pollutants.	*Filmstrip* Nature's Filter. Narcotics Education, Inc. *Pamphlets* "Answering the Most Often Asked Questions About Smoking and Lung Cancer." Local Cancer Society.
The slowing of reflex responses and the increase of carbon monoxide as well as the distracting aspects of cigarette smoking may contribute to a higher rate of accidents. 1. Smoking in bed 2. Carelessness in discarding used cigarettes 3. Smoking and operating a motor vehicle a. Smoke blurs vision b. Smoke distracts attention	8. Have the students make a graph, illustrating the incidence of cardiovascular disease among smokers and non-smokers. 9. Invite a representative from a fire insurance company to discuss the cost resulting from fire caused by carelessness with cigarettes. 10. Have the students discuss the various aspects of the smoking problem, using current pamphlets as a basis for discussion.	"The Beleaguered Lung-Cancer Invades." Local Cancer Society. "The Effects of Smoking." Local Cancer Society. *Teaching Aid* *The Mechanical Smoker.* Winston Products for Education.
Psycholgical and social factors contribute to the individual's decision to smoke or not to smoke. 1. Factors which influence people to smoke a. Influence of the home (imitate parents) b. Peer group acceptance (feeling of sophistication) c. Advertising d. Soothing and pleasurable effects (1) Keeps hands and mouth occupied (2) Believed to be method of releasing tension (3) Produces a comfortable and satisfied feeling after meals 2. Factors which may discourage an individual from beginning or continuing to smoke	1. Show the film *Time for Decision.* Discuss public indifference to medical evidence. 2. Show the film *Barney Butt.* Discuss the anti-smoking message given in the film 3. Define the term *motivation.* Discuss the relationship between motivation and the decision to smoke. 4. Debate the topic "Man loves life and fears death." 5. Show the filmstrip *To Smoke or Not To Smoke.* Discuss the research studies and decision to smoke or not to smoke. 6. Discuss the responsibility of the smoker to his family and friends who are non-smokers.	*Book* Otto, James H., *et al. Modern Health.* *Films* *Barney Butt.* Local Heart Association. *Time for Decision.* Local Cancer Society. *Filmstrip* *To Smoke or Not To Smoke.* Local Cancer Society. *Pamphlets* "Facts About Smoking and Health." Science Research Associates.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
a. Influence of the home b. Arguments with non-smokers c. Peer groups d. Religious beliefs e. Cost (1) More money for other things (2) Salary loss due to illness (3) Industrial loss	7. Have the students study and discuss the effect of family relationships on influencing smoking habits. 8. Divide the class into two groups. Debate the question "Are the pleasures derived from smoking worth the risk involved?"	"World Conference on Smoking and Health." National Interagency Council on Smoking and Health. *Transparencies* *Smoking and Health.* 3M Company.
f. Appearance (1) Stains on teeth, hands (2) Unpleasant odors on clothes, breath	9. Discuss the topic "Should we try to influence classmates not to smoke? If so, how should it be done?" 10. Discuss the question "Is it worth giving up something you enjoy in order that you may be helped to live a more healthy life?"	
3. Immediate and future effects of smoking a. May impair breathing b. May impair sports performance and endurance c. Physical impairment d. Life expectancy altered e. Effects on fatigue	11. Interview three adults who have smoked for a period of time. Ask them questions such as the following: (1) Have you tried to quit? (2) Why? (3) Did you or did you not succeed? Draw possible conclusions.	
4. Reasons people continue to smoke a. Social mores b. Rejection of scientific findings c. Lack of knowledge d. Stubborness, "doubting Thomas" e. Habit formation (1) Physical dependency (2) Psychological dependency		
Current scientific information is being utilized in a variety of ways to assist the individual in making personal decisions concerning smoking. 1. Accurate information provided a. In school b. In the community (voluntary, professional, national organizations)	1. Conduct a survey within the school and compile statistics on local attitudes and practices on smoking. Compare the results with national figures.	*Book* Terry, Luther L., and Horn, Daniel. *To Smoke or Not to Smoke.*
2. Medical assistance (basically for the habitual smoker)	2. Arrange for a few students to visit the local Tuberculosis Associations, Heart Association, and Cancer Society. Have the students explore what these organizations are doing to provide assistance to those individuals wanting to give up smoking.	*Pamphlet* "What I Tell My Patients About Smoking." Local Heart Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
a. Methods of treatment (1) Medication (lobeline, sedatives, tranquilizers) (2) Diet advice b. Withdrawal clinics (1) Professional (out-patient conference and treatment) (2) Lay organizations (group therapy and discussions) (3) Independent organizations	3. Have a few students visit a local withdrawal clinic and report their findings to the class.	
The production and use of tobacco products has important economic and political implications. 1. New legislation and its economic impact 2. Tobacco industry (multi-million dollar business) a. Important source of revenue in certain tobacco producing states b. Government price support and production control c. Contribution of cigarette taxes to state and federal income d. World trade as an influence on tobacco sales e. Advertising has a major role in the tobacco industry (1) TV, radio, magazines, etc. (2) Coupons (3) Variety, length, etc. (4) Ban on TV advertising by 1971	1. Have a student write to his legislator requesting information on recent tobacco legislation. Have him report to the class. 2. Show the film *Point of View.* Discuss the influence of advertising on the public. 3. Have the students study the cost of treatment and rehabilitation of those with various health problems related to excessive smoking. 4. Investigate federal and state tax regulations on cigarettes. 5. Make a bulletin board display of tobacco advertisements. Have the students analyze and evaluate them. 6. Prepare simulated TV commercials stressing scientific facts. 7. Debate the topic "Should cigarette advertising be banned?"	*Films* *Point of View.* Local Tuberculosis and Respiratory Disease Association. *Smoking, Tobacco and Health.* United States Department of Health, Education and Welfare. *Your Health and Safety.* Lawrence, Thomas G., *et al.* *Newsletter* *Smoking and Health Newsletter.* National Interagency Council on Smoking and Health.

Area III **CONSUMER AND ENVIRONMENTAL HEALTH**

Field of Study CONSUMER HEALTH (Senior High)

Objectives

To help the student to:

1. Discriminate between reliable and unreliable health information.
2. Become concerned about the health protection of his family and others.
3. Become aware of specialists and other individuals and organizations providing assistance in medical care.
4. Become cognizant of major trends in medical care practices and medical care plans.
5. Develop an increasing awareness of consumer protection through legislation, investigation and education.

CONSUMER HEALTH (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The young adult is continuously influenced by various forces attempting to reach the health consumer. 1. Reliable sources (view source critically) a. Medical health organizations b. Voluntary health organizations c. Scientific societies d. Physicians e. Pharmacists 2. Unreliable sources a. News articles (unless documented) b. Superstitions c. Customs d. Quacks	1. Plan a discussion on the reliable and unreliable sources of health information. 2. Compare a professional and non-professional magazine and note the number and types of health-related aids. 3. Conduct an anthropology-based study of various health-related superstitions and customs. Discuss ways in which these superstitions have contributed to or hindered medical advancement.	*Article* "Don't Get Hooked by the Mail Frauds." *Changing Times.* July, 1963. *Books* Carson, G. *One for a Man, Two for a Horse.* Kieus, A. *Magic, Faith and Healing.* Lynd, Albert. *Quackery in the Public Schools.* *Film* *Wise Buying.* Coronet Films.
Evaluation of the reliability and usefulness of health information is possible when the buyer utilizes established criteria. 1. Source of information 2. Professional background of the individual 3. Reputation of the individual or organization 4. Motive behind the product 5. Scientific presentation of the information	1. Have the students bring in ads from newspapers and magazines and evaluate the products, using the suggested criteria. (See Concepts.) 2. Prepare a list of 5-10 books or magazines related to health, health products, and information. Have the class do research on the credentials of the authors and the publishers.	*Article* "The Medicine Show." *Consumer Reports.* *Book* Johns, E., *et al. Health for Effective Living.* *Transparencies* *Analyzing Influences on Health Choices.* 3M Company
Advertising through various media has a strong influence on the young adult as a consumer of health products and services. 1. Selling techniques a. Low pressure method (buyer makes his own decision) b. High pressure method (forceful, aggressive tactics)	1. Have the students identify various exercise or weight-reducing programs. If possible, investigate the professional background of the individual sponsoring the program or interview a qualified physician as to the medical feasibility of the program. 2. Have the students role play situations which	*Books* Bauer, W.W. *Today's Health Guide.* Masters, Dexter. *Intelligent Buyer and the Telltale Seller.* Sanford, David. *Hot War on the Consumer.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
2. Advertising a. Half truths or false advertising. b. Misleading statements c. Testimonials d. Guarantees	identify the low pressure and high pressure techniques in selling health goods and services. 3. Have members of the class seek out misleading statements and claims in TV and other ads.	*Films* *Nutritional Quackery*. Associated Film Services. *Pamphlets* "Cosmetics." Food and Drug Administration. "Facts on Quacks." American Medical Association.
Young adults are most susceptible when purchasing certain items. 1. Beauty treatment and skin-care products 2. Food fads 3. Weight reducing pills 4. Physical fitness gimmicks 5. Food supplements and vitamins	4. Have the students display various items which appeal to young adults, analyze these products for factual information, and indicate the cost of each item. 5. Have the students evaluate the above items as to "status" in today's society. 6. Have the students bring in objects purchased through the mail which had false or misleading advertising and claims.	"Your Money and Your Life." Food and Drug Administrations.
The young adult can be victimized by quacks. 1. The quack a. Motivated to make money b. Preys on the uninformed c. Makes false and misleading statements d. Promises impossible results (subtle and clever) 2. Quackery a. A billion dollar business b. Reaches all ages c. Vital public health problem d. Poses serious threat to health and life (1) Self diagnosis (2) Self medication	1. Discuss the various reasons why people go to quacks (psychological, economic.) 2. Have students compare claims made by quacks and licensed physicians which relate to cures of such disorders as cancer or arthritis. Discuss the consequences of following the quack cures. 3. Discuss how a lack of faith in the medical profession can be a deciding factor in the individual's decision to turn to quackery. How can confidence be restored?	*Article* "Psychic Surgery: A.M.A." *Time.* October, 1968. *Books* Gentry, Curt. *The Vulnerable Americans.* Jarvis, D.C. *Arthritis and Folk Medicine.* Young, James Harvey. *Toadstool Millionaires.* *Pamphlets* "Cancer, What to Know, What to Do About It." United States Department of Health, Education and Welfare. "The Cancer Quacks." United States Department of Health, Education and Welfare. *Transparencies* *Applying Health Criteria.* 3M Company

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The young adult can help protect his family through responsible decisions. 1. Become a discriminating consumer 2. Seek medical assistance before making health-related decisions 3. Demand reliable products for each family member	1. Dramatize a situation where a young family moves into a new neighborhood and faces a major health emergency.	*Film* *Consumers Want to Know.* Massachusetts Department of Education. *Pamphlet* "Your Family's Health." Public Affairs Pamphlet.
A variety of health services are essential to protect and promote good health. 1. Health specialist 2. Family physician (1) Preventive services (2) Medical care (3) Reliable referral services 3. Family dentist (1) Basic dental services (2) Referral services 4. Other health specialists	1. Have the students discuss how they would go about selecting a physician in a new community. 2. Discuss the physician-patient ratio and have a few students examine the situation locally. 3. Have some students seek information on sources of reliable health specialists, professional societies, libraries, and professional directories. 4. Select students to write to the American Medical Association requesting information regarding the requirements (educational and legal) needed to practice in Massachusetts.	*Article* "Strange Tales of Medical Imposters." *Today's Health.* October, 1968. *Book* Otto, James H., *et al. Modern Health.* *Pamphlet* "Chiropractice: The Unscientific Cult." American Medical Association.
Medical care practices are going through dramatic changes at the present time. 1. Medical group practice as brought about by increased specialization a. Changes in diagnostic techniques along with laboratory and technical procedures b. Greater capacity for quality medical care c. Emphasis on preventive medicine d. Local medical clinics more prevalent 2. Institutional care a. Hospitals operated by the government	1. Have interested students do research on the change in medical care in the last half century and report findings to the class. 2. Have a student do research on the changing role of the physician at the turn of the century and compare it to the role of the specialist today. 3. Invite a physician from a local medical clinic to discuss the services offered. Find out what the advantages are for the patient and doctor. 4. Conduct an evaluation of the health services in the community. Compare these with other	*Book* Bauer, W.W. *et al. Health and Safety for Teen-agers.* *Pamphlets* "Do You Know Your Hospital?" American Hospital Association. "Hospital Today." American Hospital Association. "Rates and Charges in Your Hospital." American Hospital Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
(1) Federal (2) State (3) County (4) Local b. Non-government operated hospitals (1) Community (2) Private c. Hospitals maintained for the care of the mentally or chronically ill d. Nursing homes (1) Extended care facilities (2) Chronic care homes	communities. Evaluation should include the location, the number serviced, and socio-economic standing of the people served. 5. Visit the Lahey Clinic in Boston or invite a representative from the Clinic to discuss modern techniques for preventing and treating diseases and disorders. 6. Have a hospital director or his representative visit the class and discuss modern hospital care. 7. Arrange for a visit to a local hospital. Discuss opportunities for volunteer services for young adults. 8. Have a member of the State Board of Health visit to discuss the State's involvement in nursing homes. 9. Have a student visit nursing homes in the area, interview directors, and report to the class on their contributions to health care. 10. Survey the community to learn about the institutions offering care. 11. Have interested students become involved in voluntary community work in a nursing home or hospital. 12. Have students evaluate hospitals in the community. Compare the advantages and disadvantages of private as opposed to public hospitals.	"What to Look for in a Nursing Home." American Medical Association.
Medical care plans are numerous and changing each year. 1. Voluntary health insurance plans a. Loss of income b. Hospital expense	1. Have the students establish criteria for selecting a health insurance policy. 2. Have a Blue Cross, Blue Shield representative visit the class and discuss voluntary health plans.	*Pamphlets* "A Consumer's Guide to Health Insurance Plans." Public Affairs Committee. "About Extended Care." Channing L. Bete Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
c. Surgical expense d. Regular medical e. Major medical 2. Tax supported Plans a. Medicare b. Medicaid	3. Invite an insurance man to discuss the types of medical insurance plans currently available. 4. Have a representative from the local or regional Medicaid office visit and discuss the services offered through the State program. 5. Obtain literature from the nearest Social Security office and discuss the services available through the Medicare program. 6. Plan a debate on Medicare and individual responsibility. 7. Provide a sample budget for health care for a year for a young family with two children. Have the students compare this budget with their own family budget.	"Medicare and You: How it Helps Pay Hospital and Doctors' Bills After 65." Channing L. Bete Company. "Medicare – Benefits and Gaps." Public Affairs Committee. "Social Security: Your Rights." Public Affairs Committee. "The Blue Cross Story." Public Affairs Committee. "What Everyone Should Know About Health Insurance." Channing L. Bete Company.
Legal protection for the consumer is essential today. 1. Food, Drug and Cosmetic Act a. Protects the consumer b. Protects reliable manufacturer and dealer 2. Federal Hazardous Substances Labeling Act 3. Federal Trade Commission Act (Wheeler-Laos Amendment of 1938) 4. State and local legislation	1. Have committees do research on the legal protection provided to the consumer by the federal, state, and local governments.	*Book* Smith, Ralph Lee. *The Health Hucksters.* *Pamphlet* "The Consumer's Right to Know: Political Rhetoric or Economic Reality." Federal Trade Commission.
Education can provide a valuable basis for consumer health decisions.	1. Discuss the adult's responsibility to educate himself in order to protect himself and his family against high medical expenses. 2. Discuss how and where to go for correct health information, according to the need.	*Articles* "Education – A Weapon Against Quackery." *Journal of School Health.* January, 1964. "Educational Defenses Against Quackery." *Journal of School Health.* March, 1968. "Educational Resources Against Quackery." *Journal of School Health.* November, 1964.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		"Health Education Vs. Medical Quackery." Food and Drug Administration Reference Sheet.
The health consumer is protected from pseudoscientific practices through the efforts of many organizations. 1. Food and Drug Administration 2. Federal Trade Commission 3. Federal Communications Commission 4. Better Business Bureau 5. American Medical Association 6. National Health Council 7. Arthritic Foundation 8. Post Office Department 9. Consumer Advisory Council 10. President's Special Assistant for Consumer Affairs 11. Private organizations a. Consumer's Research, Inc. b. Consumer's Union, Inc.	1. Have a representative from the Food and Drug Administration, Bureau of Consumer Protection speak to the class and display products recommended to be deleted from the market by this organization. 2. Have groups of students either write to or visit the organizations listed under Primary Concerns and report on the work being done to protect the consumer.	*Article* "FTC Gets a Nader Needling." *Business World.* January 1969. "New Look in Consumer Protection." *Changing Times.* November, 1966. *Book* Ottenberg, Miriam. *The Federal Investigators.* *Films* *A Reason for Confidence.* National Medical Audiovisual Center. *Fraud Fighters.* McGraw-Hill Book Company. *Pamphlet* "FDA What It Is and Does." Food and Drug Administration. United States Department of Health, Education and Welfare.

Area IV SAFE LIVING

Field of Study SAFETY (Senior High)

Objectives

To help the student to:

1. Recognize that accidents are the result of underlying causes, some of which may be psychological.
2. Become alert to situations which contribute to an unsafe environment.
3. Develop an appreciation of the strong impact safe living has upon the national economy.
4. Appreciate that adjusting and adapting to one's environment results in safer living.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Accidents tend to follow predictable and modifiable patterns. 1. Identification of causes 2. Study of interrelationships between person or persons involved, the agent, and the environment 3. Classification of accidents 4. Identification of segments of population 5. New findings from analytical studies	1. Have the students report on an accident which happened in the community. They should consider the place, setting, equipment, reaction, etc. 2. Seek information from the Massachusetts Safety Council on safety studies recently completed. Discuss the findings and how these studies were conducted.	*Books* Meredith, Florence, *et al. Health and Fitness.* Stack, Herbert, and Elkow J. Duke. *Education for Safe Living.* *Film* *Anatomy of an Accident.* Distributed by local police department. *Pamphlets* "Using Standard Accident Reports." Massachusetts Safety Council. "What You Should Know About Standard Student Accident Reports." Massachusetts Safety Council.
Underlying causes can set the stage for accidents. 1. Emotions a. Fear b. Anger c. Hatred d. Anxiety e. Nervousness 2. Lack of emotional stability 3. Attention seekers 4. Behavior patterns a. Lack of concentration b. Acident proneness c. Perception (awareness of objects in one's environment) d. Reaction time 5. Attitudes	1. Have the students make a study of a variety of accidents reported locally. Have a discussion of the possible underlying causes of such accidents. 2. Have the students work in committees to do research on the importance of determining underlying causes of accidents, which underlying causes are most common, and how they may be eliminated. 3. Plan for a panel discussion, using the topic "The relationship of personality to accidents." 4. Find out how observant the students are of their environment by asking them a number of questions about a room they go into often.	*Films* *Everybody's Different.* Massachusetts Safety Council. *People Are All Alike.* Massachusetts Safety Council. *Safety Attitudes.* Massachusetts Safety Council. *Teamwork for Safety.* Massachusetts Safety Council.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
a. Development of desirable attitudes b. Poor attitudes difficult to change		
Human factors can be modified to prevent accidents. 1. Accident repeaters can become careful 2. Irresponsible individuals should acquire responsible attitudes 3. Reduction in abuse of drugs and alcohol *Accidents are sometimes the result of inability to perform certain skills.* 1. Skillful performance essential a. Driving b. Motor cycling c. Competitive sports d. Industrial arts e. Hunting 2. Fatigue factor critical for favorable reaction time	1. List several poor attitudes which could contribute to accidents. Discuss how and when these attitudes are usually formed and suggest ways in which they can be changed. 2. Have the students discuss age as a factor in accident rates. 3. Develop a list of characteristics as they relate to the accident prone person and compare these characteristics to those of the safety conscious individual. 4. Discuss briefly accidents in which alcohol or drugs may have been contributing factors. 5. Have a few students investigate hazards involved in performing recreational skills such as using firearms, surfing, taking part in competitive sports.	*Pamphlets* "Accidents Facts – 1970." National Safety Council. "National Standard School Shop Safety Inspection Checklist." Massachusetts Safety Council. "Safety in the Auto Shop." Massachusetts Safety Council. "Safety in the Electrical Shop." Massachusetts Safety Council. "Safety in the Gymnasium." Massachusetts Safety Council. "Safety in the Machine Shop." Massachusetts Safety Council. "Track and Field Events." Massachusetts Safety Council.
Parental responsibility includes protection of children and providing a safe environment. 1. Identification of childhood accidents a. Motor vehicles b. Fires c. Drowning d. Poisons 2. Safety-consciousness 3. Balance between common sense and over cautiousness 4. Prevention of home accidents (family cooperation)	1. Have members of the class make a survey of hazards in the neighborhood which could hurt children. If possible, develop a project to eliminate such hazards. 2. Have the students develop a safety list for the home and use the list to evaluate their own homes. Compile statistics from the data when it is returned. 3. Have a debate on the topic "The safest place is home." 4. Have each student plan a schedule which will allow enough time in the morning for the	*Book* Brownell, Clifford L., and Evans, Ruth. *Health Science.* *Pamphlets* "Bathroom Hazards." Massachusetts Safety Council. "Electrical Equipment." Massachusetts Safety Council. "Hand Tools." Massachusetts Safety Council. "The Hazard Hunter." Massachusetts Safety Council.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	members of the family to get to school or work safely and on time. Follow the plan for a week and discuss in class the necessity for total family cooperation. 5. Have each student make a list of common household items and tell where he believes he will find each one in his home. Have the student check at home to see how many items were in their correct places. 6. Discuss the statement "Home accidents occur five times as frequently as motor vehicle accidents."	"Kids Will Be Kids." Massachusetts Safety Council. "Motorcycling and You." Channing L. Bete Company. "Play Areas." Massachusetts Safety Council. "Playground Surfacing." Massachusetts Safety Council. "Unauthorized Play Spaces." Massachusetts Safety Council. *Periodical* *Family Safety.* National Safety Council.
Each individual must assume a greater responsibility for his safety and the safety of others. 1. Establish a degree of orderliness 2. Eliminate harmful practical jokes 3. Eliminate commonly identified hazards a. Items on the stairs b. Blocked doorways 4. Repair faulty equipment 5. Use potentially hazardous items carefully a. Sharp knives b. Power tools 6. Practice preventive measures a. Working as a babysitter b. Working as a playground instructor c. Working at a summer camp d. Assisting the aged	1. Discuss accidents which can occur as a result of practical jokes. 2. Have the students discuss the relationship between self discipline and accident prevention. 3. Have the students discuss their experiences while babysitting and how they handled any emergencies. 4. Have the students role play a situation, showing the responsibility of the babysitter in an emergency situation. 5. Have students who babysit construct a notebook and include important information such as emergency telephone numbers, tips on how to handle children at various age levels, activities to provide safe entertainment for the children, preparation of food and feeding of children, anticipating emergencies. 6. Invite members of the Golden Age Club to visit the class. The students can discuss with them how to avoid accidents.	*Kits* *Babysitter Safety Program Kit.* National Safety Council. *Safety of the Elderly Program Kit.* National Safety Council. *Pamphlets* "Councilors and Helpers in Summer Camps." Massachusetts Safety Council. "Forget Things." Massachusetts Safety Council. "Poor Sight." Massachusetts Safety Council. "Tire Easily." Massachusetts Safety Council. "You're in Charge." Massachusetts Safety Council.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
A safe environment requires constant alertness to unsafe situations. 1. Attention requires concentration (reaction time and perception develop as attention improves) 2. Undesirable habits and attitudes can be changed by a. Modifying habits b. Practicing safe habits	1. Have the students do research on some critical safety areas which require alertness (snowmobile as a family vehicle, firearms, power tools.) 2. Discuss the responsibilities involved in owning a motor cycle, motor scooter, or motorized bicycle. 3. Establish committees to make safety inspections of the school and specific areas of the community. 4. Have students discuss their own undesirable safety habits and make suggestions on how these habits can be changed.	*Article* "The Alluring but Alarming Snowmobile." *Family Safety.* Winter, 1969. *Book* Lawrence T. Gordon, *et al. Your Health and Safety.* *Pamphlet* "Are You Safety Conscious?" Massachusetts Safety Council.
Human resources, time, and money are lost through accidents. 1. Accident problem a. Leading cause of death in the first half of life span b. Human resources (1) Disabling injuries (2) Deaths (motors vehicles, work, home, drownings) c. Accident costs (1) Wage losses (2) Medical fees (3) Property damage in motor vehicle accidents (4) Property destroyed by fire 2. Occupational concerns a. Industry spends considerable sums (1) Providing safety measures for employees (2) Providing safety programs	1. Have a few students contact a legal insurance company for data on current accident statistics and report their findings to the class. 2. Have a few students write a report using data from the pamphlet "Accident Facts." 3. Invite a representative from a large insurance company to visit the class and discuss the relationship of accidents, insurance rates, and payments. 4. As a special project, have some students work with the local safety officer. If possible, have one or two students spend the day with him to observe his various duties. 5. Compare the cost of accidents in this country with other expenditures such as the amount spent for education, etc. 6. Have a few students visit a nearby industrial plant to interview the person responsible for the safety of the employees. They can report to the class on the employee safety program.	*Books* Life, John R., *et al. Concepts in Health, Course Three.* Life, John R., *et al. Concepts in Health, Course Four.* *Pamphlet* "Accident Facts." National Safety Council. *Periodical* *Statistical Bulletin*. Metropolitan Life Insurance Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
b. Workmen's compensation laws (improved working conditions)	7. Have a safety supervisor of a nearby industrial organization visit the class and report on safety activities for the employees.	
Environmental hazards can be controlled and accidents reduced. 1. Physical environment a. Need for adequate illumination b. Awareness of rapid change in weather conditions c. Awareness of dangers in absorption of carbon monoxide (1) Oxygen deficiency (2) Lowered attention span (3) Impaired vision (4) Lack of muscular coordination d. Awareness that increased humidity and temperature rise to 90^{O}F impairs psychomotor coordination e. Need for marking glass doors to prevent injuries f. Need for protecting children from peeling house paint (lead poisoning) 2. Social environment (strained child-parent relationship creates hazardous emotional climate)	1. Have a small committee explore environmental hazards in a section of the community. Have the class discuss how these hazards can be corrected. 2. Have the students take pictures of various local environmental hazards or collect pictures of accidents caused by environmental conditions and make a bulletin board display or collage for school display. 3. Have the students conduct an informal insepction of various areas of the community and note the number of houses with peeling paint. 4. Have the students do research on the effects of lead poisoning on the body. 5. Have students do research on the various sources of possible lead poisoning in the environment.	*Books* Grout, Ruth E. *Health Teaching in Schools.* Oberteuffer, Delbert. *School Health Education.* Schneider, Robert E. *Methods and Materials of Health.* Strasser, Marland K. *Fundamentals of Safety Education* *Pamphlet* "Home Lighting." Massachusetts Safety Council.
Many organizations are cooperating in safety promotion and accident prevention. 1. National organizations a. National Safety Council b. American Red Cross c. National Board of Fire Underwriters d. National Committee for Traffic Safety e. Medic-alert Foundation	1. Have the students identify various organizations and discuss their roles in making the nation a safer place in which to live. 2. Assign a student to contact the Medic-alert Foundation and report on its purpose and the services it offers. 3. Have the students compile a list of names and addresses of local organizations involved in	*Books* Byrd, Oliver E., *et al. Health Today and Tomorrow.* Stack, Herbert, and Elkow, J. Duke *Education for Safe Living.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
2. State and local organizations a. Massachusetts Safety Council b. Registry of Motor Vehicles c. Local police departments (safety officer) d. State police e. Boston Poison Information Center (Telephone 232-2120) f. Local chapter of the American Red Cross	safety promotion. Discuss services offered by each of these organizations. 4. Have the students form volunteer groups to assist various safety promotion organizations in the community. 5. Invite the local safety officer to discuss the role of the police department in maintaining a safe environment.	

APPENDIX

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National Safety Council

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How the Guidance Quacks Work on Your Worries
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Living With an Alcoholic
Youth and the Alcoholic Parent

Alcoholic Problems Association

The City America Could Build

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Allyn and Bacon, Inc.

A Programmed Unit on Facts About Alcohol

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- *Adult School Crossing Guards*
- *Best Route to School*
- *Bring 'em Back Alive*
- *Look Both Ways*
- *Manual of Pedestrian Safety*
- *School Pedestrian Safety Program*
- *Teacher's Guide to Bicycle Safety Activities and Projects*
- *10 Traffic Safety Guides*
- *Terry the Tricycle*
- *Traffic Safety Guide for Teachers*
- *The Young Pedestrian*

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- *Answering the Most Often Asked Questions About Cigarette Smoking and Lung Cancer*
- *Best Tip Yet – Don't Start*
- *Cancer Invades*
- *Cancer of the Lung*
- *Congress Has Acted – Now It's up to You*
- *The Effects of Smoking*
- *If You Want to Give up Cigarettes*
- *I'll Choose the High Road*
- *100,000 Doctors Have Quit Smoking*
- *Smoking Cigarettes? Why?*
- *Smoking Experiments*
- *Smoking Habits of High School Students in Newton, Massachusetts*
- *To Smoke or not to Smoke*
- *Where There's Smoke*

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- *The People Around Us*
- *Seeing Ourselves*

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- *How to Stop Smoking*
- *What Everyone Should Know About Smoking and Heart Disease*
- *What to Tell Your Parents About Smoking*

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Did You Know That?
Do You Know Your Hospital?
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How to Be a Better Patient
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Take Stock of Your Assets
Vitamin Supplements and Their Correct Use
What to Look for in a Nursing Home

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Crutch that Cripples
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Manual on Alcoholism
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American Pharmaceutical Association

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American School Health Association

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The Glue Sniffing Problem
A Guide to Some Drugs Which Are Subject to Misuse
The Narcotic Addiction Problem

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Quackery in Arthritis

Association for Childhood Education International

Don't Push Me!

Better Business Bureau

Bait Ads that Hook Your Dollar

Don't Fall for These Gimmicks
Facts You Should Know About Your Better Business Bureau

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Bicycle Regulations in the Community
Helpful Hints on Bicycle Care

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Early Childhood Education Council of New York

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The Consumers Right to Know: Political Rhetoric or Economic Reality
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The Nutrition Ladder to Better Health

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LSD: The False Illusion
Medicine: Prescription and Over the Counter
Read the Label
Runningawayness
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Additives in Our Food
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The New ABC's of Health Insurance

Indiana University Press

The Addict and the Law

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When the Unexpected Happens

Kemper Insurance Company

Bikes and Boys and Girls
Children's Five Safety Lessons
The Way to Go

Licensed Beverage Industry, Inc.

Planning for Alcohol Education

Los Angeles County Board of Education

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Massachusetts Congress of Parents and Teachers, Inc.

What About Drinking

Massachusetts Department of Education

Federal and Massachusetts Drug Laws
School Drug Policies – A Guide for Administrators

Massachusetts Department of Mental Health, Division of Drug Rehabilitation

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Narcotic and Harmful Drug Information
Narcotic and Harmful Drug Laws

Massachusetts Department of Public Health, Division of Alcoholism

Alcoholism: A Family Guide to Understanding the Illness and What to Do About It
Report on Alcoholism
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Massachusetts Heart Association

What I Tell My Patients About Smoking

Massachusetts Safety Council

Are You Safety Conscious?
Bathroom Hazards
Councilors and Helpers in Summer Camps
Educating Public Passengers
Electrical Equipment
Emergency 77
Evacuation Drills
Falls
Flammable Liquids in the Home
Forget Things
Hand Tools
The Hazard Hunter
Hazards of Discarded Iceboxes and Refrigerators
Home Lighting
Inspection Check List
Kids Will Be Kids
Lifting, Carrying, Lowering
Matches
National Standard Schoolshop Safety
Non-Electrical Household Equipment
Passenger Safety in Public Carriers
Perfection-Plus for Evacuation Drills
Play Areas
Playground Surfacing
Poor Sight
Questions and Answers About Chemical Testing of Intoxicated Drivers
Safe on Food
Safety in the Autoshop
Safety in the Electrical Shop
Safety in the Farm Mechanics Shop
Safety in the Gymnasium

Safety in the Machine Shop
Safety in Public Excursions
Safety in the Workshop
School Bus Safety Rules
School Fires
School Parties
Skiing Safely
Swimming
Tire Easily
Track and Field Events
Unauthorized Play Spaces
Using Standard Accident Reports
What You Should Know About Standard Student Accident Reports
Working for Safety
You're in Charge

Metropolitan Life Insurance Company

Play It Safe

Money Management Institute

Your Health and Recreation Dollar

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Annotated Bibliography of Literature on Narcotic Addiction
Help a Narcotic Addict
The Marijuana Decision
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Classroom-tested Techniques for Teaching About Smoking
If You Must Smoke-Five Ways to Reduce the Risks of Smoking
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Smoking and Illness
What We Know About Children and Smoking

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- *Hangover Losses*
- *Health Education Through a Council on Alcoholism*
- *The Hospital's Place in a Program of Alcoholism*
- *Recent Findings Regarding Alcoholism in Industry*
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- *Thirteen Steps to Alcoholism*

National Education Association

- *Fire Safety for Teachers of Primary Grades*
- *Drug Abuse: Escape to Nowhere*

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- *Don't Give Fire a Place to Start*
- *Fire Safety Checklist*
- *Fire Safety Quiz*
- *Fire – What Would You Do?*

National Institute of Mental Health

- *Alcohol and Alcoholism*

National Interagency on Smoking and Health

- *Smoking and Health Newsletter*
- *World Conference on Smoking and Health*

National Research Bureau, Inc.

- *How to Prevent Accidents in Your Home*

National Safety Council

- *Accident Facts*

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- *Cigarette Smoking*
- *Emphysema*
- *Chronic Bronchitis*
- *Shortness of Breath*
- *Chronic Cough*
- *Facts in Brief*
- *Me Quit Smoking? How?*
- *Me Quit Smoking? Why?*
- *Questions and Answers of Smoking and Health*
- *Ways to Keep Well and Happy*

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- *Animal Feeding Demonstrations*

Choose Your Calories by the Company They Keep
Dairy Foods in the United States of America
Food Science and How It Began
Guide to Good Eating
How Food Becomes You
My Friend the Cow
Vitamins from Food
Weight Control Source Book
What Did You Have for Breakfast This Morning?
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Where We Get Our Food

Public Affairs Committee, Inc.

A Consumer's Guide to Health Insurance Plans
The Blue Cross Story
Making Medical Care Better
Medi-Care Benefits and Gaps
Social Security: Your Rights
Tensions and How to Master Them
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The Classic Temperance Movement of the U.S.A.
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Facts About Smoking and Health
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Getting Along with Parents
Getting Along in School
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Growing up Socially
Guide to Good Manners
High School Ahead
How to Get Along with Others
How to Increase Your Self-confidence

How to Solve Your Problems
Making and Keeping Friends
Understanding Yourself
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What Are Your Problems?

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Rehabilitation in Drugs Addiction
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Series on Specific Drugs
Smokers Self Testing Kit
Smoking, Health and You
Smoking, Tobacco and Health
Students and Drug Abuse
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What's New on Smoking in Films

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Look Alive

United States Department of the Treasury

Annual Report on Tobacco Statistics

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Mail Fraud

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Journal of Alcohol Education

Metropolitan Life Insurance Company

Statistical Bulletin

National Safety Council

Family Safety
School Safety

Monograph

United States Department of Health, Education and Welfare

The Protection and Promotion of Mental Health in Schools

Newsletter

National Interagency Council on Smoking and Health

Smoking and Health

Play

National Safety Council

A Day in the Home

Sample Teaching Unit

American Medical Association

Defenses Against Quackery

AUDIO-VISUAL MATERIALS

Films

Air Force Films

- *Be Water Wise*

American Automobile Association

- *The Day the Bicycles Disappeared*
- *Dead Right*
- *Dick Wakes Up*
- *The Safest Way*
- *10 "Otto The Auto" Films*

American Cancer Society

- *A Breath of Air*
- *The Embattled Cell*
- *I Have A Secret Cure for Cancer*
- *Smoking: Past and Present*

American Heart Association

- *Barney Butt*
- *Smoking and You*

Associated Film Services

- *Nutritional Quackery*

Association Films, Inc.

- *You and Your Family*
- *You and Your Friends*

Bailey Films

- *Marijuana*
- *LSD – Insight or Insanity*

Carousel Films

- *The Loosers*

Center For Mass Communications

- *To Your Health*

Churchill Films

- *Drugs and the Nervous System*

Coronet Films

- *Act Your Age*

Are You Popular?
Attitudes and Health
Consumer Protection
Control Your Emotions
Dating Do's and Don'ts
Developing Friendships
The Fun of Being Thoughtful
Good Sportsmanship
Growing Up
How Friendly Are You?
How Honest Are You?
Let's Play Fair
Moving Day – Timmy's New Neighbors
Overcoming Fear
Playground Safety
Science and Superstition
The Ugly Duckling
Ways to Settle Disputes
What to Do About Upset Feelings
What to Do on a Date
Wise Buying
Your Family
Your Friend the Doctor

Curriculum Films

Safety in the Summer

Eastman Kodak Company

Street Safety for Primary Grades

Encyclopaedia Britannica Educational Corp.

Beginning to Date
Don't Be Afraid
Making Friends
Mental Health
Personality and Emotions
Tobacco and the Human Body

Henk Newenhouse

Food for a Modern World

Lederle Laboratories

Folks, Facts and Pharmacy
Man Alive
To Our Health

Local Police Department

Anatomy of an Accident

Massachusetts Department of Education

Consumers Want to Know
Beyond LSD
Steps Toward Maturity and Health
Alcoholism
Teenagers Talk About Drinking

Massachusetts Safety Council

Alco Beat
Everything to Lose
The Little Things that Count
Safe as You Know How
Safety Is in Order

McGraw-Hill Book Company

Better Safe Than Sorry
The Bully
Buying Food
Choosing a Doctor
Emotional Health
Fraud Fighters
Let's Be Safe at Home
The Meaning of Adolescence
The Other Fellow's Feelings
The Troublemaker
Quacks and Nostrums

Metropolitan Life Insurance Company

Looking at Children

Narcotics Education, Inc.

Beyond Reasonable Doubt
Cancer by the Carton
One in 20,000
Time Pulls the Trigger

National Medical Audiovisual Center

Getting Through
The Health Fraud Racket

National Safety Council

Everybody's Different
People Are All Alike
Teamwork for Safety

National Tuberculosis and Respiratory Disease Association

Point of View

National Women's Christian Temperance Union

Any Boy – U.S.A.
Brain Is the Reason
Public Enemy No. 1

New England Dairy and Food Council

The Big Dinner Table
Food, Energy, and You
Food for Life
Food that Builds Good Health
How Food Becomes You
The Human Body: Nutrition and Metabolism
More Food for Your Money
Nutrition Needs of Our Bodies
Uncle Jim's Dairy Farm
What Do We Know About Teeth?
What's Good to Eat?
Your Food – Chance or Choice?

Swift and Company

Meat on the Move

Sterling Movies, Inc.

The Medicine Man

United States Department of Health, Education and Welfare

FDA
The Meanest Crime
A Reason for Confidence

Walt Disney Production – Upjohn Company

Understanding Stresses and Strains

Women's Auxilary, Massachusetts Medical Society

A New Look at the 018 Source
I Never Looked at It that Way Before
Tobacco and Alcohol: The $50,000 Habit.

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American Baker's Association

The Food We Eat
What's in Our Food?

American Cancer Society

Is Smoking Worth It?
Huffless, Puffless, Dragon
To Smoke or not to Smoke

Cereal Institute, Inc.

Skimpy and a Good Breakfast

Churchill Films

Drugs and the Nervous System

Encyclopaedia Britannica Educational Corp.

Promises Are Made to Keep
Sharing with Neighbors
Walt Disney Safety Tales

Eye-Gate House, Inc.

Alcohol-Chemistry and Uses
Control of Narcotics, Drugs and Health
Courage
The Effects of Alcohol
The Golden Rule
Narcotics: Background Information
No One Will Know the Difference
Tobacco and Health
Tobacco – Historic Background
Tobacco – Report of the U.S. Surgeon Generals Advisory Committee (1901)

Imagination, Inc.

Ten Little Tasters

Institute on Life Insurance

Dollars for Health

Jam Handy Organizations

Using Your Time and Abilities
Your Feelings

McGraw-Hill Book Company

Alcohol and You
Getting Acquainted
Manners at Home
Manners at School
Narcotics and You
Working and Playing Together

Narcotics Education, Inc.

Nature's Filter

National Foundation

The Little Pink Bottle

Society for Visual Education, Inc.

Alcohol and Your Health

Be a Better Pedal Pusher
Game of Might Have Been
Getting Along with the Family
How to Make and Keep Friends
Learning to Be Forgiving
Let's Visit Our Friends
Living with Brothers and Sisters
Rx – Not for Kicks
Safe and Sound at Home
Walk the Straight and Narrow
What Good Is School?
Working Together

Young American Films, Inc.

Home Safety
Playing Safely
Safety at Christmas
Safety to and from School
Street Safety

Charts

Massachusetts Department Public Health – Division of Alcoholism

Driver Drink Chart

National Tuberculosis and Respiratory Disease Association

Respiratory System Chart

Kits

Cereal Institute, Inc.

Breakfast Unit – Basic Breakfast Pattern

Massachusetts Inter-Agency Council on Smoking and Health

Idea Kit on Smoking and Health Education

Massachusetts Safety Council

Baby Sitter Safety Program Kit
Safety of the Elderly Program Kit

Posters

Florida Citrus Commission

A Good Breakfast Is Fun

The Nutrition Ladder to Better Health
We Help You Keep Fit

New England Dairy and Food Council

Every Day Eat the 1-2-3-4 Way
Make Lunch Count
Your Food – Chance or Choice?

United States Department of Agriculture

Daily Food Guide
Follow the Food Guide Every Day
Get Your A for Health

National Safety Council

School Safety Poster Packets

Slides

Massachusetts Tuberculosis and Respiratory Disease Association

Cigarette Advertising Slide Series

National Safety Council

Safety Attitudes

Spirit Masters

Florida Citrus Commission

C Is for Citrus
Four Seasons
The Orange Clock
Word Picture Story of Florida Citrus

Transparencies

Cereal Institute, Inc.

Nutrient Chart Transparencies

D.C.A. Educational Products, Inc.

Additives in Our Food
Alcohol – Levels I, II, and III
Danger/Strangers
Safety Signs Along the Highway
Safety Signs on Our Street
Smoking Levels I and II
The Use and Misuse of Drugs

3M Company

Alcohol – Use and Misuse
Applying Health Criteria
Comparing Health Choices
Consumer Protection Sources
The Dentist
Governmental Agencies and Health
Hazards of Self Diagnosis
Influences on Health Choices
Mood and Behavior Modifiers: Common and Special Circumstances
Mood and Behavior Modifiers: How, When, Where
The Pharmacist
The Physician
Professional Health Specialists
Range of Mood and Behavior Modifiers
Substances that Modify Mood and Behavior
Various Controls on Mood and Behavior Modifiers

Tape

Educational Progress Corporation
The Choice Is Yours

Miscellaneous

Cereal Institute, Inc.
A Basic Breakfast Pattern

New England Dairy and Food Council
Comparison Cards
Food Models

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MASSACHUSETTS DEPARTMENT OF EDUCATION

Health Education Curriculum Guide
Evaluation Sheet

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Specific Comments (Please include page references where applicable.)

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THE COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF EDUCATION
DIVISION OF
CURRICULUM AND INSTRUCTION

MEMORANDUM

TO: Superintendents of Schools
Principals

FROM: H. Marie Garrity, Coordinator

SUBJECT: Health Education Curriculum Guide (Part 2)

Herewith is Part 2 of the *Health Education Curriculum Guide* published by the Department of Education in 1971.

This portion which now completes the *Guide* includes the following fields of study:

Body Structure and Function
Cleanliness and Appearance
Community Health
Dental Health
Diseases and Disorders
Ecology
Family Life
First Aid and Emergency Procedures
Fitness and Body Dynamics
Health Careers
Sensory Perception
Sleep, Rest, and Relaxation

Initially, Disaster Behavior and World Health were to be treated as separate fields of study. Instead, the information relating to Disaster Behavior is included under First Aid and Emergency Procedures and World Health is included under Community Health.

CG 007 170

HEALTH

EDUCATION

CURRICULUM

GUIDE

Grades 1-12
Part 2

THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF EDUCATION
DIVISION OF CURRICULUM AND INSTRUCTION

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FOREWORD

The health problems in the state and the nation can no longer be ignored. Conservation of our human resources is now one of our most critical responsibilities. The comprehensiveness of this curriculum guide should help to set the pattern for increased involvement of the home, school, and community in improving the quality of life of each child, so desperately needed for the 70's.

It is with this in mind that this curriculum guide has been designed. Intelligent use of this publication can serve as the initial step in filling a void in the total process of educating each child in the schools throughout the Commonwealth. It recognizes that health practices and behavior patterns need to start as early as possible in the child's learning experience. Health education must be made available in the educational setting.

All school systems in Massachusetts need to reassess their goals and objectives and carefully evaluate their health-education programs. Not until each system has provided an effective program with qualified teachers, will the needs of the children be met adequately.

Neil V. Sullivan

April, 1972

Commissioner of Education

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TABLE OF CONTENTS

Page

Foreword ii
Acknowledgements iv
Table of Contents viii
Introduction xii
Purpose of the Guide xiv
Overview xvi

EARLY CHILDHOOD 1
I. PHYSICAL HEALTH 1
Body Structure and Function 1
Cleanliness and Appearance 5
Dental Health 9
Diseases and Disorders 14
Fitness and Body Dynamics 19
Sensory Perception 23
Sleep, Rest, and Relaxation 30

II. MENTAL AND SOCIAL HEALTH 33
Family Living 33

III. CONSUMER AND ENVIRONMENTAL HEALTH 39
Community Health 39
Ecology 43

IV. SAFE LIVING 47
First Aid and Emergency Procedures 47

MIDDLE GRADES 52
I. PHYSICAL HEALTH 52
Body Structure and Function 52
Cleanliness and Appearance 61
Dental Health 65
Diseases and Disorders 69
Fitness and Body Dynamics 74
Sensory Perception 79

Sleep, Rest, and Relaxation 85

II. MENTAL AND SOCIAL HEALTH 88
Family Living 88

III. CONSUMER AND ENVIRONMENTAL HEALTH 93
Community Health 93
Ecology 99
Health Careers 102

IV. SAFE LIVING 105
First Aid and Emergency Procedures 105

JUNIOR HIGH 111
I. PHYSICAL HEALTH 111
Body Structure and Function 111
Cleanliness and Appearance 121
Dental Health 127
Diseases and Disorders 134
Fitness and Body Dynamics 140
Sensory Perception 145
Sleep, Rest, and Relaxation 150

II. MENTAL AND SOCIAL HEALTH 153
Family Living 153

III. CONSUMER AND ENVIRONMENTAL HEALTH 159
Community Health 159
Ecology 164
Health Careers 170

IV. SAFE LIVING 174
First Aid and Emergency Procedures 174

SENIOR HIGH 180
I. PHYSICAL HEALTH 180
Body Structure and Function 180
Cleanliness and Appearance 187
Dental Health 191

Diseases and Disorders 197
Fitness and Body Dynamics 205
Sensory Perception 210
Sleep, Rest, and Relaxation 216

II. MENTAL AND SOCIAL HEALTH 220
Family Living 220

III. CONSUMER AND ENVIRONMENTAL HEALTH 227
Community Health 227
Ecology 234
Health Careers 243

IV. SAFE LIVING 247
First Aid and Emergency Procedures 247

APPENDIX 251

BIBLIOGRAPHY 251
Books 251
Articles 265
Pamphlets 266
Periodicals 272

AUDIO-VISUAL MATERIALS 273
Films 273
Filmstrips 283
Charts 287
Careers Mobile 288
Flannelboard 288
Kits 288
Manuals 288
Models 288
Pictures 289
Posters 289
Program 289
Records 289

Tapes 290
Transparencies 290

AGENCIES AND ORGANIZATIONS PROVIDING ASSISTANCE AND MATERIALS 292

MINIMUM EDUCATIONAL REQUIREMENTS FOR ALLIED HEALTH OCCUPATIONS 298

EVALUATION SHEET 303

INTRODUCTION

Health education is a life science. It is the sum of all the experiences which will assist in changing behavior patterns for the better as they relate to the application of knowledge to produce and maintain health. Health is a quality of life, and the degree or level is determined by the interest or ambitions of the individual. To achieve this quality of effective living, youth must receive the available scientific facts by way of the educational process in all areas of the school curriculum. Circumstances in our society clearly indicate that the school environment, created for the purpose of preparing future citizens, in cooperation with the home, community leaders, and resource personnel, must assume the responsibility for educating youth in matters concerned with the quality of living. Youth deserves the right to live effectively in his environment affected as it is by man.

A comprehensive, sequential, health-instruction program should be provided in every school throughout the school years. The health coordinator, health teacher, classroom teacher, and other resource personnel should guide youth in the process of discovering the facts which help him make favorable behavioral decisions about health. Acquisition of such knowledge should be an on-going process, because health is the result of a continuous living experience. And as the life span increases, health education opportunities should be designed to maintain the most effective quality of life.

An individual's or a community's success in maintaining a better than satisfactory level of health and safety depends equally upon that which is done by the individual as well as by group action and reaction. There should be complete interdependence where health is concerned, requiring all persons to make decisions which reflect desirable behavior patterns to benefit the individual, home, school, and community.

A major responsibility of all educators is to be currently informed about the emerging health issues. Pupils' concerns must become teachers' concerns if learning is to become reality.

This *Guide* has been prepared by individuals representing various levels of education at the school and college levels as well as representatives from public health, community health, and voluntary health organizations and professional organizations. It offers school administrators, supervisors, coordinators, teachers, and others guidelines for presenting health information in an educational environment to children and youth. The *Guide* is deliberately designed to be fluid, permitting local communities the privilege of designing the course work in detail from the first years of school to the last in accordance with the specific priorities of the local community.

Educators, recognizing the ever increasing abundance of health problems existing today, suggest that the concepts and primary concerns found in the *Guide* should evolve in course work via a comprehensive, sequential program in grades 1-12. During the periods when growth and development are significant, children and youth should acquire information relevant to their needs. Such information affords them a basis for interaction with their classmates as well as a foundation for making wise decisions when confronted with having to prevent illness and maintain health.

This *Guide* relates to such current critical areas of health as drug information, consumer health, preventing disease and arresting disorders, avoiding accidents, techniques for maintaining healthy teeth, methods of controlling earth pollutants, understanding how to get along with people, making wise decisions when buying and eating foods, and other vital areas. The *Guide* recognizes that the school is uniquely suited to the task of encouraging youth to develop ways to manage themselves physically, mentally, socially, and culturally in their environment.

Children and young adults will enjoy the opportunity of improving the quality of living by discovering how to live more effectively. Influential teachers who are exemplars of health practices, may increase their own measure of effectiveness and automatically transmit the desire to follow a health career to those they teach. Health education can be a unique instrument to gain this end, and the teacher of health may well be considered the sculptor of the future.

Dana L. Farnsworth, M.D.

Elizabeth A. Neilson, Ed.D.

PURPOSE OF THE GUIDE

This *Health Education Curriculum Guide* has been developed to assist local school districts develop stronger, more effective school-health programs. It does not pretend to serve as a panacea for all the health needs which exist in our society. It should, however, serve to expand the thinking and give direction to curriculum committees responsible for improving the quality of health instruction in our schools.

The Department of Education is aware that refinement of this part of the *Guide* will of necessity have to be made. As educators throughout the Commonwealth use this document to guide them in the development of local programs, suggestions for improving it may well be forthcoming. For this purpose, an evaluation sheet has been included wherein comments, criticisms, and suggestions from local school districts may be forwarded to the Department.

The immediate concern of educators, physicians, parents, health personnel, and others for the critical health needs of our youth now requires positive action on the part of all citizens throughout the Commonwealth.

The *Guide* is organized under four broad areas of health:

Physical Health
Mental and Social Health
Consumer and Environmental Health
Safe Living

These four broad areas encompass the essential qualities of well-being which enable the child to live effectively and enjoyably. The following specific fields of study were designated as priority needs and thus were included in Part 1 of the *Guide:*

Consumer Health
Drugs - Alcohol, Tobacco, and Other Drugs
Emotional Development
Nutrition
Safety and Accident Prevention

The fields of study in Part 2 are as follows:

Body Structure and Function
Cleanliness and Appearance
Community Health
Dental Health
Diseases and Disorders
Ecology
Family Life
First Aid and Emergency Procedures
Fitness and Body Dynamics
Health Careers
Sensory Perception
Sleep, Rest, and Relaxation

As school systems continue to develop curriculum in health education, the following suggestions might be considered:

1. Establish a health education committee in the local school system. This committee should have a broad representation of administrators, teachers, health related personnel, community health representatives, religious groups, parents, and students.

2. Have the committee set up goals and objectives to meet the health needs of the children and the specific local community under the direction of a well-qualified health coordinator.

3. Have the committee evaluate the school health program, considering all aspects of

the health-instruction phase of the program, the health services provided for the school child, and the healthful school environment which is so important in contributing to the learning situation.

4. Organize a curriculum sub-committee and develop a course of study, insuring flexibility in sequence and content consistent with the health interests and needs of the students and local community. Utilization by this committee of the Department of Education *Health Education Curriculum Guide* as an aid in developing local curricular materials is recommended. It is not recommended that this *Guide* be used as a teaching guide by the classroom teacher.

5. Utilize qualified individuals, agencies, voluntary organizations, and professional associations locally and throughout the state as important resources.

OVERVIEW

Area I PHYSICAL HEALTH

Content includes: *Body Structure and Function, Cleanliness and Appearance, Dental Health, Fitness and Body Dynamics, Nutrition, Diseases and Disorders, Sensory Perception, Sleep, Rest, and Relaxation.*

The Physical Health area focuses on factors which determine the level of health each child and youth may possess. The student discovers how his growth and development are partly affected by the body he inherits and partly by his behavior and environment.

The student becomes aware of the health factors which profoundly affect his growth process. He discovers how his daily living routine favorably or unfavorably controls his health. He also becomes aware of the body's basic structure and function - its anatomy and physiology - and techniques for maintaining the masterpiece. The student learns that there is a close interrelationship among all of his complex physical body parts. He learns that the body needs special nutrients; regularly scheduled physical activity; daily application of known dental facts; and a planned program of sleep, rest, and relaxation to maintain health, control disorders, and prevent diseases. This area helps the student to understand and appreciate his physical appearance and his internal mechanism. He discovers that the intricacies of the functioning of the body systems can be made simple by regularly scheduled application of health facts, which in turn, prove economical by preventing health problems.

Area I guides the student to a greater appreciation of his body as he learns that it is far more complex than any computer or mechanical invention created by man.

Area II MENTAL AND SOCIAL HEALTH

Content includes: *Emotional Development and Family Life and Drugs.*

Mental health is a multidimensional area involving all aspects of living, and it is manifested directly in terms of emotional and social well-being.

Many of the hospital beds in this country are occupied by mentally ill, and thousands of people outside the hospitals are in real need of psychiatric help to restore their sense of values and their ability to carry on major life functions in a pleasant and efficient manner. Both youth and adults need to know themselves and be able to adjust to the complexities and pressures of present-day living.

As the population increases and large masses of society are living in close proximity to one another, there is significant need to understand how the other person feels, why he feels this way, and how it affects his behavior and the behavior of others. It is for this purpose that the mental health material in this section was designed.

There is deep concern today that the sociological health problems are becoming more significant in our affluent society. It is important that students be given opportunities to understand better the health implications relative to all chemical substances which have a potential for abuse.

The content included in this area is relevant to all other subjects areas of the health curriculum. Through a growing understanding of the development of human emotions, the student will be better prepared to make decisions relative to personal desires, social relationships, and personal family interactions, permitting him to participate in a happy and productive life.

Area III CONSUMER AND ENVIRONMENTAL HEALTH

Content includes: *Ecology, Health Careers, Community Health, and Consumer Health.*

The Consumer and Environmental Health area focuses on the interrelationships of man with his fellow men and his environment. The student discovers how man is influenced by his environment and how he alters the environment both beneficially and adversely. Awareness of the scope of environmental problems including global involvement is desirable.

Modern community health programs are explored on local, state, national, and international levels. The roles of official and voluntary health agencies, of professional associations, and of foundations are studied, and the effect of legislation, both state and federal, is identified. An historical review of the development of public health in Massachusetts and current program areas provides an excellent prototype for those who seek approved models.

The student becomes familiar with the varied and diverse vocational opportunities offered by the health field. In addition to monetary return, the satisfaction of service to one's fellow man through a health career is emphasized.

An understanding of how to be a knowledgeable consumer of goods and of health services assists the student as he eventually becomes an independent health consumer. Quackery is explored in depth, including historical examples as well as modern examples and techniques. Emphasis is placed on its prevalence, how to recognize it, and how to avoid being a victim.

The role of the individual as a comsumer of health services and his responsibility for their proper utilization is defined.

Area IV SAFE LIVING

Content includes: *Safety and Accident Prevention, First Aid and Emergency Procedures.*

Safe Living is one of the most critical areas in today's society. Affluence and giant steps in the field of science have made large numbers of persons, particularly our youth, more vulnerable to accident situations. The increasing scope of recreational pursuits such as swimming and boating without proper training and lack of emergency measures to be taken in times of disaster have created new problems. These are of major concern to all citizens.

Safe Living implies the development of safety attitudes essential for survival in our now complex society. Although man boasts of controlling his environment, there is still need for the student to understand the emergency nature of a catastrophe and the procedures necessary to protect himself and others.

Education for accident prevention and emergency care is the responsibility of the individual, the home, the school, and the community.

EARLY CHILDHOOD

Area I PHYSICAL HEALTH

Field of Study BODY STRUCTURE AND FUNCTION

Objectives

To help the pupil to:

1. Be aware of his own growth and development.
2. Realize that growth can be appraised and measured.
3. Appreciate that everyone grows in his own unique way.
4. Acquire a wholesome respect for the human body.

BODY STRUCTURE AND FUNCTION (Early Childhood)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Each individual grows and develops at his own rate. 1. Physically 2. Mentally 3. Socially	1. To demonstrate this concept, have the pupils plant some seeds and watch the plants grow and develop. (Select seeds that grow at different rates and to different heights.) 2. Have the pupils bring pictures of themselves as babies to class. Discuss how they have changed. 3. Ask the pupils who have baby brothers and sisters to tell about the changes taking place in the babies. (The rate of growth is faster for babies than for older children.) 4. Have the pupils collect pictures of adults of different heights.	*Books* Byrd, Oliver E., *et al. Health (1-3).* Cosgrove, Margaret. *A Is for Anatomy.* Irwin, Leslie W., *et al. All About You.* Richmond, Julius B. *Health and Growth (3).*
Growth can be measured in different ways. 1. Height 2. Weight 3. Body form	1. Have the pupils observe their hair and nails. Discuss the fact that these grow at different rates. 2. Have each child weighed and measured several times during the year and record the results on a personal growth card. The child can examine his card at intervals to see how fast he is growing.	*Film* *Animal Babies Grow Up.* Coronet Films. *Filmstrips* *Finding Out About Your Body: We Grow.* The Jam Handy Organization. *Finding Out How You Grow.* Society for Visual Education, Inc.
Each body is uniquely designed.	1. Show the pupils how different parts of the body can be measured. 2. Have each child outline a hand or a foot. He can compare his outline with that of classmates to note the difference in growth. 3. Have pupils who have baby brothers or sisters tell how they differ in size and body form from other members of the family.	*Films* *About the Human Body.* Churchill Films. *You, the Human Animal.* Walt Disney Productions.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The cell is the structural unit of the body. 1. Cell (structural unit of the body) 2. Tissue (similar cells working together) 3. Organ (two or more tissues working together) 4. System (two or more organs working together to complete a special function)	1. Draw a picture of a cell on the chalkboard. Show how the cell divides to make two new cells exactly like itself. (Cells of the same kind grouped together make the tissues of the body.) 2. Have the pupils view the palms and backs of their hands under a strong magnifying glass. Discuss what they see. 3. Have each pupil look at the surface of his tongue in a mirror. Discuss the differences between tongue and hand tissue. 4. Have the children develop a dictionary of health terms. 5. Discuss the purpose served by the skin. Have the children examine a kitten, a frog, and a plant and note the protective covering of each.	*Books* Hinshaw, Alice. *The True Book of Your Body and You.* Keen, Martin L. *The Wonders of the Human Body.* King, Fred M., and Otto, George R. *What Is a Cell?*
The body systems are necessary for life. 1. Circulatory system (carries blood) 2. Digestive system (carries food) 3. Respiratory system (provides air) 4. Skeletal system a. Provides the structure for the body b. Provides protection for the organs 5. Excretory system (eliminates body wastes) 6. Reproductive system a. Regulates the body b. Makes possible the birth of babies 7. Nervous system (sends messages to and from the brain)	1. Show the children models of the heart and lungs. Discuss these as essential organs of the body. 2. Show the children charts of the various body systems. Discuss the systems briefly. 3. Identify the various parts of the body. Write new words on the chalkboard and pronounce them for the children.	*Books* Educational Services, Inc. *Bone Picture Book.* Nourse, Alan. *The Body.* *Chart* *Parts of the Body.* The Instructor Publications, Inc. *Films* *Your Body and Its Parts.* Encyclopaedia Britannica Educational Corp. *Your Bones and Muscles.* The Jam Handy Organization. *Your Heart and Lungs.* The Jam Handy Organization. *Your Nervous System.* Coronet Films.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		Model Plastic Model of the Human Body. Local Department Store.
The body requires daily care and protection.	1. Discuss the kind of care that such mechanical devices as cars and bicycles require. Compare this to daily needs of the body for effective functioning. 2. Discuss the role of the nurse and doctor in helping to keep the body functioning effectively. 3. Discuss daily care and protection required by pets. During a "show and tell" period, have the children show their pets or pictures of their pets and tell how they provide care and protection for them. 4. Discuss the factors that assist in growth (inheritance, proper diet, sleep, exercise).	*Book* Irwin, Leslie W., *et al.* *You and Others.* *Film* *Your Friend the Doctor.* Coronet Films. *Filmstrips* *Finding Out About Your Body.* Society for Visual Education, Inc. *Keeping Well.* McGraw-Hill Book Company.

Area I PHYSICAL HEALTH

Field of Study CLEANLINESS AND APPEARANCE (Early Childhood)

Objectives

To help the pupil to:

1. Understand that personal neatness and cleanliness are conducive to good health.
2. Appreciate the importance of dressing for the climate and the weather.
3. Develop good habits of cleanliness and grooming.

CLEANLINESS AND APPEARANCE (Early Childhood)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
A clean body generally reflects good feelings. Good feelings can result in; 1. Happiness 2. Contentment	1. Have the pupils bring pictures of children to class. Discuss the feelings shown by the children in the pictures. 2. Display pictures of children bathing, and discuss the importance of bathing regularly. 3. Keep a full-length mirror in the room so that the children may periodically check their appearance. 4. Demonstrate how to use a nail file, comb, and brush. 5. Have the children role play getting ready for bed. Stress the importance of individual use of toilet articles.	*Books* Goldin, Augusta. *Straight Hair, Curly Hair.* Irwin, Leslie W., *et al. All About You.* Richmond, Julius B., *et al. Health (2).* *Films* *Cleanliness and Health.* Coronet Films. *How Billy Keeps Clean.* Coronet Films. *Kitty Cleans Up.* McGraw-Hill Book Company. *Filmstrip* *Keeping Neat and Clean.* Encyclopaedia Britannica Educational Corp.
Good posture contributes to good health and good grooming.	1. Have each pupil study his posture in a mirror. Provide opportunities for all the pupils to evaluate their posture at intervals. 2. Have the pupils draw pictures showing children standing, sitting, and moving correctly. 3. Discuss feelings reflected by a person's posture. A pet's posture. 4. Discuss the effect of good posture on the body systems. 5. Encourage good posture in standing, sitting, and moving. Evaluate postural habits during the school year. 6. Discuss the relationship of foot care to good posture.	*Books* Byrd, Oliver., *et al. Health (3).* Irwin, Leslie W., *et al. Growing Every Day.* Richmond, Julius B., *et al. Health (2).* *Film* *Beginning Good Posture Habits.* Coronet Films. *Filmstrips* *Let's Stand Tall.* Society for Visual Education. *Straight and Tall.* McGraw-Hill Book Company. *Pamphlet* "What You Should Know About Your Child's Foot Health." National Foot Health Council.

. Concepts and Primary Concerns	Sample Learning Experiences	Resources
Clothing should be clean and comfortable. 1. Washed frequently 2. Fit the occasion 3. Fit properly	1. Display samples of natural and synthetic fabrics. Discuss the different kinds of fabrics. 2. Discuss the important points to consider in buying shoes. 3. Discuss the importance of buying socks that are the correct size. Stress the importance of wearing clean socks. 4. Have the pupils role play shopping for new clothes.	*Books* Byrd, Oliver E., *et al. Health (1-3).* Irwin, Leslie W., *et al. You and Others.* *Film* *Choosing Clothes for Health.* Coronet Films. *Filmstrip* *Let's Get Ready for School.* Society for Visual Education. *Kit* *Keeping Clean and Neat.* The Instructor Publications, Inc.
Clothing services the body in different ways. 1. Protects against weather 2. Protects the skin from scratches	1. Have the pupils play getting ready for school and selecting clothes to fit the weather. 2. Have the pupils draw pictures showing children dressed properly for weather conditions. Stress the importance of owning fewer serviceable clothes rather than many unsuitable ones.	*Film* *Dress for Health.* Encyclopaedia Britannica Educational Corp. *Filmstrip* *Right Clothes Help Health.* Eye Gate House, Inc.
Clothing must be cared for properly.	1. Demonstrate how to use a clothes hanger and how to polish shoes. 2. Demonstrate how to hang clothes in the closet or locker in school. 3. Have the children take turns keeping the area where clothes and boots are kept neat and clean. If lockers are used, have a pupil check to be sure that all doors are closed.	*Film* *Your Clothing.* McGraw-Hill Book Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	4. Have the pupils role play returning home from school and changing into playclothes. 5. Show pictures of boys and girls caring for their clothes, and have the pupils write sentences about the pictures. 6. Have the children make a checklist of things to do in caring for clothes. Some suggestions follow: (1) Change to play clothes after school. (2) Tell Mother when items need to be repaired or mended. (3) Hang up clothing that should be hung up. (4) Polish shoes. (5) Put dirty clothes in hamper. (6) Keep the bedroom neat and clean. Have the pupils take the checklist home.	
Clean hands help to prevent illness.	1. Discuss the importance of keeping hands as clean as possible. 2. Demonstrate the proper way to wash hands. 3. Have each pupil make an outline of his hands on one sheet of paper. One can show the clean palm and the other the back with clean nails. 4. Have the pupils draw posters showing clean hands. Permit them to take the posters home. 5. Provide time before eating and after using the toilet facilities for the children to wash their hands.	*Books* Elgin, Kathleen. *Read About the Hand.* Krishef, Robert K. *Our Wonderful Hands.* *Charts* *Good Health Charts.* The Instructor Publications, Inc. *Film* *Care of Hair and Nails.* Encyclopaedia Britannica Educational Corp.

Area I PHYSICAL HEALTH

Field of Study DENTAL HEALTH (Early Childhood)

Objectives

To help the pupil to:

1. Realize that the first teeth should be cared for.
1. Appreciate that teeth should last a lifetime.
3. Be aware of the foods that help develop and maintain strong teeth and those that contribute to poor dental health.
4. Appreciate the people who are providing dental care.
5. Develop the skills and habits essential for good dental health.

DENTAL HEALTH (Early Childhood)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The teeth assist the body in a number of ways. 1. Eating 2. Speaking 3. Providing an attractive appearance 4. Aiding in jaw growth	1. Have the children plan a bulletin board showing children with attractive smiles. 2. Have the pupils make a collage of pictures of mouths showing good teeth. 3. Have the children attempt to eat pieces of carrots and apples without using their teeth. 4. Discuss the importance of chewing food thoroughly and eating slowly. 5. Discuss the fact that teeth make eating enjoyable. 6. Discuss the reasons why people and animals have teeth. 7. Discuss the importance of teeth in speaking.	*Books* Byrd, Oliver E., *et al. Health (1-3).* Irwin, Leslie W., *et al. You and Others Growing Every Day.* Richmond, Julius B., *et al. Health and Growth (1-3).* *Film* *Healthy Teeth.* Aims Instructional Media Services, Inc. *Pamphlets* "Dental Health Facts for Teachers." American Dental Association. "Dental Health Today." Proctor and Gamble Company. "Teaching Dental Health." American Association for Health, Physical Education and Recreation. "Teeth, Health and Appearance." American Dental Association.
The teeth differ in shape and in the work they do. 1. Primary teeth 2. Permanent teeth 3. Types of teeth a. Incisors (cut) b. Cuspids (tear) c. Bicuspids (crush) d. Molars (grind)	1. Have each pupil look in a mirror and count the number of teeth he has. 2. Have the pupils examine their teeth and discuss the different shapes they see. 3. Have the pupils make clay models of the different teeth. 4. Have the pupils examine the teeth of their pets and compare them with the structure of their own teeth.	*Books* Byrd, Oliver E., *et al. Health and Growth (1-3).* Irwin, Leslie W., *et al. You and Others.* *Charts* *Good Health Charts.* The Instructor Publications, Inc.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	5. Show X rays of teeth to help the pupils identify their structure. 6. Have the pupils look at models of primary and permanent teeth. 7. Discuss the importance of the primary teeth as placeholders and guides for the permanent teeth. 8. Display models of the different teeth. 9. Have the pupils draw pictures of the different teeth. 10. Have the pupils identify the parts of the tooth.	*Film* *What Do You Know About Teeth?* American Dental Association. *Filmstrips* *Health and Teeth.* Eye Gate House, Inc. *Learning About Our Teeth.* Encyclopaedia Britannica Educational Corp. *The Mouth I Live In.* Colgate-Palmolive Company.
Daily care is essential for good dental health. 1. Proper diet 2. Regular brushing	1. Discuss the importance of proper food in building healthy teeth. 2. Have the pupils list the foods that are good for snacks and regular meals. 3. Discuss how pets clean their teeth. 4. Have the pupils name some foods that are "nature's" toothbrushes. 5. Discuss types of toothbrushes. 6. Demonstrate the correct way to brush the teeth. 7. Have the children practice the proper method of brushing. 8. Have the pupils draw pictures of themselves brushing their teeth. 9. Have the pupils make posters of fruits and vegetables that can be eaten as between meal snacks. 10. Discuss the fact that with proper care the permanent teeth will last a lifetime. 11. Discuss the school lunch program and the foods necessary for good dental health.	*Films* *Dental Health: How and Why.* Coronet Films. *Learning to Brush.* American Dental Association. *Filmstrips* *Michael Eats Good Food.* United States Department of Health, Education and Welfare. *Michael Learns to Brush His Teeth.* United States Department of Health, Education and Welfare. *Models* Large Toothbrush and Teeth. Lactona Products Division. *Pamphlets* "You Can Teach Toothbrushing." American Dental Association. *Posters* Florida Citrus Commission.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		Toothbrushing Kits Proctor and Gamble. American Dental Association.
Various people provide necessary dental care. 1. Dentist 2. Dental hygienist 3. School nurse	1. Have the pupils visit the school dentist to see the equipment he uses. 2. Have the pupils write to the dentist thanking him for his time and help. 3. Have the pupils role play a visit to the dentist. 4. Have the school dentist explain the importance of fluorides in preventing tooth decay. 5. Invite the dental hygienist to discuss dental care and the prevention of dental accidents. 6. Have the pupils find out if their community adds fluoride to the drinking water. If so, discuss the people responsible for this service.	*Books* Cornacchia, Harold J., *et al. Health in Elementary Schools.* Wheatley, George M., and Hallock, Grace T. *Health Observation of School Children.* *Film* *A Dentist in the Classroom.* American Dental Association. *Filmstrips* *Let's Visit the Dentist.* Society for Visual Education, Inc. *Michael and the Dentist.* American Dental Association. *Pamphlet* "I'm Going to the Dentist." American Dental Association.
Caring for one's teeth is a personal responsibility.	1. Discuss what a child might do when he cannot brush his teeth after eating. 2. Have the pupils keep a record of the number of times they brush their teeth without being told. 3. Display articles which may damage the teeth (pencils, nuts, buttons, other hard objects). 4. Have the pupils make a list of practices which might damage the teeth. Discuss the importance of preventing damage to the teeth.	*Films* *Teeth Are to Keep.* Encyclopaedia Britannica Educational Corp. *Tommy's Healthy Teeth.* Coronet Films. *Filmstrip* *Billy Meets Tommy Tooth.* Massachusetts Dental Society.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	5. Discuss the reason why the dentist puts in a space maintainer in some instances. 6. Discuss what may be done if a permanent tooth is knocked out. 7. Discuss the need for visiting the dentist twice a year. 8. Have the pupils check their snack foods to see whether they select "clean" foods in preference to sweet and sticky foods. 9. Have the pupils plan a "bunny party" using unsweetened foods such as vegetables, fruits, popcorn, peanuts, and cheese as refreshments. 10. Have the children make a checklist of things to do for dental health. Some suggestions follow: (1) Eat fruits and vegetables in place of candy for lunches and snacks. (2) Go to the dentist for checkups. (3) Brush teeth correctly. (4) Help younger brothers and sisters to care for their teeth.	*Pamphlet* "How We Take Care of Our Teeth." American Dental Association.

290

Area I **PHYSICAL HEALTH**

Field of Study DISEASES AND DISORDERS (Early Childhood)

Objectives

To help the pupil to:

1. Develop an increased interest in his body and an appreciation for the need to protect it.
2. Understand that good health habits will help the body to defend itself against diseases and disorders.
3. Understand that the body is subject to change because of certain diseases and disorders.
4. Practice positive health habits that will protect him and his family and prevent major health problems.

DISEASES AND DISORDERS (Early Childhood)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The body possesses a signal system for indicating illness. 1. Headache 2. Stomachache 3. .Vomiting 4. Skin rashes 5. Sore throat 6. Fever 7. Chills	1. Discuss signals and signs of illness. 2. Discuss procedures a pupil should follow when he senses one or more symptoms while at home or at school. 3. Have the pupils role play a situation in which a member of the family is ill and is cared for. 4. Demonstrate and discuss the use of a thermometer in measuring body heat.	*Books* Byrd, Oliver E., *et al. Health (1).* Irwin, Leslie W., *et al. Growing Every Day.* *Film* *Looking at Children.* Metropolitan Life Insurance Company.
Certain diseases are caused by germs and spread by various means. 1. Man 2. Animals 3. Food 4. Water 5. Insects 6. Air 7. Plants	1. Have a child wear white gloves for a day while participating in regular activities. Examine the gloves at the end of the day. Discuss why hands should be washed frequently, especially before eating. 2. Have the pupils draw pictures showing how germs spread. 3. Darken the room and project a beam of light from a filmstrip or film projector into the darkened room. Have the pupils notice the dust particles moving in the air. Discuss how dust particles can enter the body. 4. Have the pupils prepare culture media with a sample taken from a dirty object and one from a visibly clean object. Incubate and observe the bacterial growth. Note and stress that the "clean" object contained germs. 5. Discuss the importance of keeping rats and mice out of the house. 6. Discuss ways a simple cold can spread. 7. Discuss how food spoilage can be prevented.	*Films* *Germs and What They Do.* Coronet Films. *Let's Keep Food Safe to Eat.* Coronet Films. *Microbes and Their Control.* Bailey-Film Associates.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	8. Have the children draw pictures of plants that may be injurious to the body. 9. Discuss the care of pets and the importance of handling them properly. 10. Discuss germs that are carried by air and water.	
The body has ways to defend itself against disease germs. 1. Skin 2. Mucous membranes 3. White blood cells 4. Antibodies	1. Draw a diagram on the chalkboard to illustrate how white cells surround and destroy germs. 2. Use an atomizer to show how sneezing and coughing spread germs.	*Films* *Alexander Learns Good Health Habits.* Coronet Films. *Your Protection Against Disease.* Encyclopaedia Britannica Educational Corp.
The body must have help to defend itself against illness. 1. Pupil helps by a. Eating foods from basic food groups daily b. Getting adequate rest and sleep c. Dressing for weather conditions d. Keeping skin clean e. Telling an adult when feeling ill f. Seeking medical assistance 2. Family physician helps by a. Determining the cause of illness b. Prescribing medicine c. Advising what to do d. Giving immunization shots	1. Invite the school nurse to discuss how the body can be helped to defend itself against illness. 2. Discuss the importance of eating clean food and of protecting it from dirt and germs. 3. Discuss how the family physician can help the body defend itself against disease. 4. Discuss the importance of wearing proper clothing to prevent the body from becoming chilled. 5. Discuss the importance of keeping fingernails clean in order to prevent the spread of diseases. 6. Have the pupils role play a situation in which a child visits the doctor because of certain symptoms indicating an illness.	*Book* Byrd, Oliver E., *et al. Health (1-3).* *Films* *Joan Avoids a Cold.* Coronet Films. *Soapy the Germ Fighter.* Avis. *Filmstrip* *Michael Likes Good Food.* United States Department of Health, Education and Welfare. *Pamphlet* "Immunization." American Medical Association. *Tapes* *Taking Care of Myself.* Society for Visual Education.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		Your Body: How You Use Food and Stay Healthy. Society for Visual Education.
Children may be subject to certain diseases. 1. Chickenpox 2. Colds 3. Influenza 4. Measles 5. Mumps 6. Poliomyelitis 7. Streptococcal infections 8. Whooping cough	1. Discuss the various diseases that children are frequently exposed to and those that can be prevented. 2. Invite the school nurse or doctor to discuss the importance of immunization shots.	*Books* Bauer, W.W. *Today's Health Guide.* Byrd, Oliver E., *et al. Health (3).* Dubos, Rene, and Pines, Maya. *Health and Disease.* Nemir, Alma. *The School Health Program.* *Film* *Health - Communicable Diseases.* Aims Instructional Media Services, Inc.
Children may be subject to various disorders. 1. Eczema 2. Fractures 3. Sprains 4. Fainting 5. Loss of vision 6. Loss of hearing	1. Discuss the various disorders prevalent at this age level. 2. Show the film *Benjamin* and discuss the characters and the illness mentioned in the film. 3. Have the children examine a model of the heart and discuss its importance. 4. Have each child use a stethoscope to listen to his own heartbeat and to the heartbeat of a classmate. 5. Have the pupils relate the heart to the circulatory system. Trace the path of blood from the heart through the body.	*Films* *Benjamin.* Coronet Films. *I Never Catch a Cold.* Coronet Films. *Let's Have Fewer Colds.* Coronet Films. *Pamphlet* "Old King Cold." American Medical Association.
Many diseases spread from person to person.	1. Have the children draw posters illustrating how they can prevent diseases from spreading. 2. Have a pupil demonstrate the correct use of the drinking fountain.	*Film* *Let's Keep Food Safe to Eat.* Coronet Films.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	3. Have the children plan and serve a snack in the room. Stress proper methods of handling food and caring for eating utensils.	*Filmstrip* *Keeping Well.* McGraw-Hill Book Company.
	4. Discuss the importance of cleanliness in preventing the spread of disease. In addition, discuss the importance of using a personal toothbrush and handkerchief.	*Posters* *Indian Health Posters.* Local Tuberculosis and Respiratory Disease Association.
	5. Have the children create poems about preventing the spread of diseases.	
Science helps man to avoid diseases and disorders.	1. Show pictures of people working in laboratories and discuss the fact that people are constantly working to control diseases.	*Film* *Your Friend the Doctor.* Coronet Films.
	2. Discuss the work of scientists in local laboratories and the contributions they are making.	*Filmstrip* *The School Nurse.* McGraw-Hill Book Company.

Area I PHYSICAL HEALTH

Field of Study **FITNESS AND BODY DYNAMICS** (Early Childhood)

Objectives

To help the pupil to:

1. **Understand that vigorous physical activity benefits the body in many ways.**
2. **Appreciate that vigorous physical activity assists in improving his self-image.**
3. **Engage in wholesome physical activity as a balance in daily living.**

PHYSICAL HEALTH (Early Childhood)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Body fitness involves more than physical growth.	1. Discuss the word *fitness* as it relates to the growth of the individual physically, mentally, and socially. 2. Discuss how being physically fit contributes to positive feelings about oneself. 3. Have the pupils participate in a vigorous activity. Talk about how good it makes one feel to participate in activities with others. 4. Have the children take part in a simple activity which everyone can perform successfully. Discuss the fun of performing a skill successfully. 5. Have the children perform more difficult skills and discuss why it is important to practice and work at improving performance. 6. Discuss the fact that activity can help a child to improve his posture and that good posture can help him feel well physically and mentally. 7. Have the pupils discuss what the word *sportsmanship* means to them, and give examples of good sportsmanship in games and sports.	*Books* Anderson, Marian H., *et al. Play with a Purpose.* Association for Childhood Education International. *Physical Education for Children's Healthful Living.* Byrd, Oliver E., *et al. Health (1-3).* Kirchner, Glen. *Physical Education for Elementary School Children.* *Film-Loop* *Movement Education.* Ealing Corp. *Films* *Fun that Builds Good Health.* Coronet Films. *Introduction to Body Movements: Locomotor Skills.* General Learning Corp. *Filmstrip* *Health and Exercise.* Eye Gate House, Inc. *Pamphlet* "Approaches to Perceptual Motor Experiences." American Association for Health, Physical Education and Recreation. *Posters* *Physical Fitness in Motion.* The Instructor Publications, Inc.
Exercise helps to strengthen the heart, improve the effectiveness of the lungs, and increase body efficiency.	1. Discuss the reasons why the body tires (illness, prolonged inactivity, stress).	*Book* Irwin, Leslie W., *et al. Growing Every Day.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	2. Invite the physical education teacher to discuss the benefits of exercise. 3. Have each pupil listen to his heartbeat with a stethoscope before and after vigorous exercise. Discuss what happens when the body exercises vigorously. 4. Have the pupils breath deeply a number of times. Discuss the rapid air exchange that takes place in the lungs when the body exercises. 5. Have the pupils perform a series of simple vigorous exercises every day. Discuss why the body does not tire as quickly when the exercises are performed daily. 6. Have the pupils bring in pictures of adults participating in various sports. Discuss how sports contribute to good health. 7. Discuss the reasons why some bodies are stronger than others.	*Filmstrip* *Your Child's Health and Fitness.* American Association for Health, Physical Education and Recreation. *Phamplet* "Fit for Fun." American Medical Association. *Record* *Physical Fitness for Primary Grades.* The Instructor Publications, Inc.
Daily exercise and play are necessary for each individual.	1. Discuss the need for regular exercise and play for every child. 2. Permit the children to participate in some of their favorite physical activities. Discuss how the activities help the body. 3. Have the pupils arrange a bulletin board showing children participating in a variety of activities. 4. Discuss the fact that helping with chores at home can provide exercise. 5. Provide the pupils with some outdoor activities and discuss the value of participating in activities outdoors whenever possible. 6. Have the children select some activities they	*Films* *Busy Bodies.* Stanton Films. *Play in the Snow.* Encyclopaedia Britannica Educational Corp.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	can participate in with other members of the family at home. 7. Discuss the need for activity after sitting or working.	
The body is capable of moving in a variety of ways.	1. Discuss the fact that bones and muscles make it possible for the body to move in different directions. 2. Have the pupils explore how the body moves through the use of locomotor movements and non-locomotor movements. Encourage large, full movements for pushing, stretching, and twisting. 3. Have the pupils draw pictures showing various body movements. 4. Have the pupils paint a mural showing children participating in a variety of activities. 5. Have the pupils listen to a recording and move to the music. 6. Read a favorite poem to the pupils and have them give their interpretation through the use of movement.	*Books* Byrd, Oliver E., *et al. Health (1-3).* Richmond, Julius B., *et al. Health and Growth (1-3).* *Films* *Dance Your Own Way.* Baily-Film Associates. *Fun that Builds Good Health.* Coronet Films. *Movement Exploration: What Am I?* Bailey-Film Associates. *Model* Human Skeleton. Local Department Store. *Pamphlet* "Movement Education for Children." American Association for Health, Physical Education and Recreation.

Area I PHYSICAL HEALTH

Field of Study SENSORY PERCEPTION (Early Childhood)

Objectives

To help the pupil to:

1. Understand that the various sense organs are designed to perform special tasks.
2. Appreciate the value of the senses in enriching human experiences.
3. Assume responsibility for caring for and protecting the sense organs.
4. Understand the relationship of the nervous system to the various sense organs.
5. Understand that sensory (neurological) responses, academic achievement, and personal behavior are dependent on one another.

SENSORY PERCEPTION (Early Childhood)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The brain regulates many body activities. Identifies messages from 1. Eyes 2. Ears 3. Mouth 4. Nose 5. Skin	1. Show the pupils a diagram of the brain. Discuss the fact that the brain acts as a switchboard for sorting different messages. 2. Discuss the reason why workmen wear protective hats. 3. Discuss how the various sense organs send messages to the brain. 4. Have the pupils identify messages the eyes send to the brain. 5. Have a child beat a drum. Point out that this action is similar to the action of sound vibrations on the eardrum. 6. Have the pupils list the ways in which the senses help people. 7. Have the pupils draw pictures of some things they saw, heard, touched, smelled, and tasted the previous day.	*Article* "The Five Senses." *Metropolitan Detroit Science Review.* May, 1960. *Books* Byrd, Oliver E. *et at.* *Health (1-3).* Calder, Clarence R. *Techniques and Activities to Stimulate Verbal Learning.* Hainstock, Elizabeth G. *Teaching Montessori in the Home.* Irwin, Leslie W., *et al.* *Dimensions in Health Series: All About You. Growing Every Day. You and Others.* Miel, Alice, ed. *Creativity in Teaching.* Syrocki, B. John. *Science Activities for the Elementary Grades.* Wheatley, George M., and Hallock, Grace T. *Health Observations of School Children.* *Filmstrips* *The Five Senses (Series).* The Jam Handy Organization. *This Is You. (Series).* Walt Disney.
The sense of hearing is developed through the ears.	1. Have pupils dramatize the ways children, adults, babies, and pets react to noises (fireworks, thunder, loud sounds). 2. To illustrate the way sound travels, drop a pebble into a bucket of water and observe the waves that are created.	*Books* Alder, Irving, and Alder, Ruth. *Your Ears.* Byrd, Oliver E., *et al.* *Health (3).* Irwin, Leslie W., *et al.* *Dimensions in Health Series: Growing Every Day. You and Others.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources

3. Demonstrate to the pupils that perception of sound depends upon the individual.

4. Have the children draw pictures of things that make noise. Ask them to describe the noises made by the objects they draw.

5. Discuss the word *noise*. Then play a record at normal volume. Play the record again and gradually increase the volume. Identify the point at which the music becomes noise.

6. Discuss the fact that loud noises can impair hearing. List ways to protect the ears from loud noises.

7. Have the pupils draw pictures showing ways to protect the ears from injury.

8. Discuss causes of ear trouble (infections, accidents, foreign objects in the ear).

9. Demonstrate the proper way to blow the nose to prevent injury to the ears.

10. Compare the mechanics of hearing to the telephone. Take a telephone apart and demonstrate how it works.

11. Ring a bell at the front of the class, inside a closet, and near one of the pupils. Have the child tell how it sounded to him.

12. Play a recording of sounds or produce sounds in the room (run water, crumple paper, drop an object, open the door). Stop after each sound and have a pupil identify it.

13. Discuss the importance of listening for car horns when crossing the street and for the warning signals at a railroad crossing.

Richmond, Julius B., *et al. Health and Growth (1-3).*

Films

Our Wonderful Ears and Their Care. Coronet Films.

Pigs! Churchill Films.

Filmstrip

You and Your Senses. Encyclopaedia Britannica Educational Corp.

Pamphlet

"The Hard of Hearing Child and His Teacher." New York League for the Hard of Hearing.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	14. Administer a hearing test to the children. In advance of the test, discuss its purpose. If possible, provide a demonstration. 15. Discuss how doctors can help people with defective hearing. Show a hearing aid to the class.	
The sense of seeing is developed through the eyes.	1. Have the children look at colored pieces of cellophane through a paper towel roll, under a magnifying glass, and through binoculars and describe what they see. 2. Rearrange articles and furniture in the classroom. At the end of the day, ask the pupils what they noticed that was different. 3. Demonstrate to the children how conclusions can be reached by observing facial expressions and body movements. Have them give examples through dramatization. 4. Discuss the various "danger" messages the eye sends to the brain and how such messages help people avoid hazards. 5. Under the heading "Be Wise - Protect Your Eyes" have the children list things they should do to protect their eyes. 6. Discuss eye strain symptoms, causes, and prevention. 7. Have the pupils list rules for watching television (sit eight to ten feet away, avoid watching too long, etc.). 8. Ask for volunteers to be blindfolded for a short time. Remove the blindfolds and have them tell how they felt during that time. 9. Discuss how eyeglasses help.	*Article* "Using the Overhead to Train Perception." *The Instructor.* January, 1970. *Books* Byrd, Oliver E., *et al. Health (3).* Irwin, Leslie W., *et al. Dimensions in Health Series: Growing Every Day. You and Others.* Kidd, O.H., and Revoive, J.L. *Perceptual Development in Children.* Richmond, Julius B., *et al. Health and Growth (1-3).* Showers, Paul. *Look at Your Eyes.* *Films* *Our Wonderful Eyes and Their Care.* Coronet Films. *See Better: Healthy Eyes.* Coronet Films. *Filmstrip* *Health and Eyes.* Eye Gate House, Inc. *Manuals* *Classroom Laboratory.* (Concepts in Science 1) Harcourt, Brace Jovanovich, Inc. *Classroom Laboratory.* (Concepts in Science 2) Harcourt, Brace Jovanovich, Inc.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	10. Discuss ways pupils can help children and adults who have lost their vision. 11. Have the pupils draw pictures showing ways to protect the eyes from injury. 12. Show pictures of different kinds of animals. Point out that animals differ from man in the use of their eyes. 13. Provide the children with activities that combine as many sensory perceptions as possible. 14. Ask the school nurse to talk about the care of the eyes and to demonstrate the vision test.	*Pamphlets* "First Aid for Eye Emergencies." Massachusetts Society for the Prevention of Blindness. "Television and Your Eyes." Massachusetts Society for the Prevention of Blindness. "Safe Play to Save Sight." Massachusetts Society for the Prevention of Blindness.
The senses of taste and smell provide many pleasures in life.	1. Have a child look at his tongue in a mirror. Discuss the difference in the covering of the tongue and the hand. 2. Have a pupil volunteer to be blindfolded. Let him taste sugar and salt while holding his nose and then without holding it. Discuss the results. 3. Discuss the sense of taste. Stress the fact that the taste permits one to enjoy all the different flavors present in foods. 4. Ask a pupil to volunteer to smell different foods while blindfolded and, if possible, to identify them. 5. Discuss how the sense of smell can protect people at certain times when they are in danger. 6. Have the children compile a list of their favorite foods. Each child can then describe the taste of his favorite food and explain any dislikes he may have of foods on the list.	*Books* Byrd, Oliver E., *et al. Health (3).* Richmond, Julius B., *et al. Health and Growth (2).* *Filmstrips* *How Your Nose Knows.* The Jam Handy Organization. *Your Tasting Tongue.* The Jam Handy Organization.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	7. Have the pupils list descriptive words for various foods (crunchy, sweet, sour, sticky). Use the words to describe the way lemons, nuts, ice cream, toast, and other foods taste or feel. 8. Have the pupils plan a tasting party. Include foods that are sweet, sour, salty, and bitter. 9. Have the pupils investigate the sense of taste. Use an eye dropper to find out the parts of the tongue that detect taste. 10. Discuss the importance of the senses of taste and smell and what it might be like if the body did not have these senses. 11. Have the pupils make a drawing of something that smells sweet (flower), strong or sharp (gasoline), etc. 12. Have the pupils bring in as many different materials to smell as possible. Put each one in a vial and label it using a code. Wrap each vial in aluminum foil and punch a small hole in the top. Pass the vials around for the children to smell and identify.	
The skin provides numerous functions for the body. 1. Provides sensory functions 2. Protects the body from infection 3. Regulates body temperature	1. Discuss the appearance and function of the skin. 2. Have the pupils discuss the various messages the skin receives from the brain (heat, cold, wet, dry, itch, pain). 3. Discuss how the skin protects the body from infection. 4. Blindfold a child and ask him to reach into a carton of small objects, choose one, and identify it by the way it feels.	*Books* Byrd, Oliver E., *et al. Health (3).* Richmond, Julius B., *et al. Health and Growth (2).* *Filmstrip* *The Feel of Your Skin.* The Jam Handy Organization.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
There may be organic reasons for a child's sensory problems.	1. Ask a child to do something (comb his hair, button his shirt) with the hand he does not ordinarily use. Have him describe how it feels.	
A breakdown in a child's sensory function may lead to academic and behavioral problems.	1. Play a recording so that only the children in front can hear what is being played. After it is completed, discuss the reaction of people in the back. Discuss what they thought took place.	

Area I PHYSICAL HEALTH

Field of Study SLEEP, REST, AND RELAXATION (Early Childhood)

Objectives

To help the pupil to:

1. Understand that sleep and rest are essential to good health.
2. Appreciate the importance of and the need for balance in daily living.
3. Make effective use of his leisure time.

SLEEP, REST, AND RELAXATION (Early Childhood)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Sleep helps the body to recover from fatigue.	1. Discuss the importance of sleep for growth. 2. Talk about the pets the pupils have at home. Discuss whether pets have to be put to bed. 3. Have a child bring his pet to school. Discuss why the pet sleeps and the manner in which it sleeps. 4. Have the pupils plan a bulletin board showing different animals sleeping and resting. 5. Discuss where birds sleep. 6. Discuss the amount of sleep a person needs in order to recover from fatigue. 7. Have the pupils draw the face of a clock and place the hands at the time they should go to bed. Let them take the drawings home. Check periodically to see if they do go to bed when they should. 8. Discuss why children need more sleep than adults. 9. Have the children role play some of the situations that can occur when one does not get enough sleep.	*Books* Byrd, Oliver E., *et al. Health (1-3).* Irwin, Leslie E., *et al. Dimensions in Health Series: All About You. You and Others.* Richmond, Julius B., *et al. Health and Growth (2-3).* *Films* *Alexander Learns Good Health.* Coronet Films. *Health - Exercise, Rest and Sleep.* Aims Instructional Media Services, Inc. *Night in a Pet Shop.* McGraw-Hill Book Company. *Sleepy Heads.* Henk Newenhouse. *Filmstrips* *Rest and Sleep.* McGraw-Hill Book Company. *Sleep for Health.* Encyclopaedia Brittanica Educational Corp.
Rest helps to restore energy to the body.	1. Discuss the meaning of the word *rest.* 2. Discuss why the body tires and how fatigue affects posture and general fitness. 3. Have the pupils dramatize their favorite way of resting after working hard (taking a warm bath, reading, listening to music, sitting quietly in a chair). 4. Have the pupils perform some vigorous activities, gradually slow down, and then rest. 5. Play restful music in class.	*Book* Irwin, Leslie W., *et al. Growing Every Day.* *Film* *Rest that Builds Good Health.* Coronet Films. *Filmstrip* *Getting Ready for Bed.* McGraw-Hill Book Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		Record *Bedtime.* Scott, Foresman and Company.
Leisure activities help the body to relax.	1. Discuss the meaning of the word *relax.* Have the pupils identify different ways that people are able to relax. 2. Have the pupils tell what they do before going to bed each night. Have them explore different ways of relaxing in order to be ready for sleep. 3. Have the pupils draw pictures showing leisure time activities at home. 4. Plan some leisure time activities in which the children can participate when they finish their work in school. 5. Demonstrate exercises that can help one to relax. 6. Have the children pantomine ways of having fun at home.	*Books* Byrd, Oliver E., *et al. Health (3).* Richmond, Julius B., *et al. Health and Growth (1).* *Film* *At Home in the Evening.* McGraw-Hill Book Company. *Filmstrip* *Family Fun.* Encyclopaedia Britannica Educational Corp.

Area II MENTAL AND SOCIAL HEALTH

Field of Study FAMILY LIVING (Early Childhood)

Objectives

To help the pupil to:

1. Develop love and appreciation for his family.
2. Understand that there are many patterns of family life.
3. Recognize the factors involved in a successfully functioning family.
4. Recognize that growing up includes assuming more responsibility in family life.
5. Assume his role as a member of his family.

FAMILY LIVING (Early Childhood)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Feelings can be either pleasant or unpleasant.	1. Have the children read and discuss stories about feelings. 2. Have the pupils discuss situations which made them feel happy and satisfied and situations which upset them. 3. Discuss things that the pupils do that may cause family members to feel good or upset. 4. Discuss and dramatize the ways pupils can judge how others in the family feel.	*Book* Moore, Lilian. *I Feel the Same Way.* *Film* *What to Do About Upset Feelings.* Coronet Films. *Picture* *Moods and Emotions.* David Cook Company. *Special Supplement* "Growth Patterns and Sex Education." *The Journal of School Health.* May, 1967.
Love is an important feeling which all people need to give and share.	1. Have the pupils read and discuss the book *What Color Is Love?* 2. Have the pupils draw a picture of "love." 3. Have the pupils tell how they show their love for other members of the family.	*Books* Anglund, Joan Walsh. *Love Is a Special Way of Feeling.* Anglund, Joan Walsh. *What Color Is Love?*
Failure is a way to learn.	1. Have the pupils discuss how they feel when they fail at something. 2. Discuss what would happen if people never tried new things. 3. Show and discuss pictures of children showing different emotions.	
Families differ in size and makeup.	1. List the people who can comprise a family. Then have the pupils draw pictures of the members of their families. 2. Discuss the changes that take place in a family when the children grow up or events cause a family member to leave.	*Books* Bauer, W.W. *Just Like Me.* Rodman, Hyman. *Marriage, Family and Society.* Mead, Margaret, and Heyman, Ken. *Family.* Zolotow, Charlotte. *Big Sister and Little Sister.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	3. Have the pupils construct a mural of a family. Include grandparents. 4. Have the pupils make up family trees. They can cut out pictures of adults and children and paste them on large pieces of paper to show how they are related.	*Films* *Allen Is My Brother.* Churchill Films. *Baby Animals.* McGraw-Hill Book Company. *A Happy Family.* Classroom Film Distributors, Inc. *Mother Hen's Family.* Coronet Films. *Filmstrips* *Brothers and Sisters.* Encyclopaedia Britannica Educational Corp. *Me, Myself, and I.* Eye Gate House, Inc. *Pamphlets* "All About You." Science Research Associates. "Finding Out About Ourselves." Science Research Associates. "Getting Along in School." Science Research Associates. "Getting Along With Parents." Science Research Associates. "How To Get Along With Others." Science Research Associates. "Life With Brothers and Sisters." Science Research Associates. "You and Your Problems." Science Research Associates. *Pictures* *A New Baby in the Family.* Scott, Foresman and Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		Transparencies *The Family-Unit 2.* Western Publishing Company. *The Family Fulfills Basic Needs.* DCA Educational Products, Inc.
Fathers and mothers do many kinds of work which affect the family.	1. Have the pupils dramatize roles of family members. 2. Have the pupils compose a song about the work of each family member. 3. Discuss how mothers and fathers care for their children. 4. Discuss the various kinds of work fathers do. 5. Have each pupil draw a picture of his father or some other member of the family at work. 6. Discuss the work mothers do at home and outside the home. 7. Have the children plan a skit showing how parents help children.	*Film* *What Do Fathers Do?* Churchill Films.
Family members help each other in different ways.	1. On the chalkboard, list the different ways the pupils help at home. They can copy the list to take home. 2. Discuss how good manners and courtesy help to make family living more fun. 4. Read and discuss the book *Kindness Is a Lot of Things.* 5. Have pupils tell how they show respect for the property of other family members. Dramatize a family situation in which someone uses something that belongs to someone else. 6. Discuss how family members contribute to the health of each other.	*Book* Eckblad, Edith. *Kindness Is a Lot of Things.* *Films* *Friendship Begins at Home.* Coronet Films. *Your Family.* Coronet Films. *Transparencies* *Family Health.* 3M Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Families have different ways of living.	1. Discuss family customs of people from other countries. Invite parents representing different ethnic groups to talk about their family customs. 2. Have pupils role play different family customs. 3. Discuss how families differ in their eating habits, in doing chores, and in other kinds of activities.	*Books* Cavan, Ruth S. *The American Family.* Coser, Rose L. *The Family: Its Structure and Functions.*
Babies are helpless and need to be cared for by their families.	1. Discuss the arrival of a new baby when it occurs in a pupil's family. 2. Have the pupils tell how they can help with a new baby. 3. Have the pupils share stories about their own birth. 4. Discuss the importance of being responsible for personal things when parents have to care for a new baby.	*Books* Duncan, Lois. *The Littlest One in the Family.* Johnson, Dorothy. *All About Babies.* Shay, Arthur. *How a Family Grows.* *Film* *Beginning Responsibility: Taking Care of Things.* Coronet Films. *Pictures* *A New Baby in the Family.* Scott, Foresman and Company.
Working and playing together helps the members of a family find happiness.	1. Discuss taking turns in family activities. 2. Have the pupils tell the ways the family members work together. 3. Discuss different recreational activities that family members can participate in together. 4. Have the pupils draw pictures showing families working and playing together. 5. Discuss the importance of respecting family rules and standards and accepting discipline relative to rules and standards.	*Book* Eckblad, Edith. *Kindness Is a Lot of Things.* *Films* *Manners at Home.* McGraw-Hill Book Company. *The Family Begins the Day.* The Jam Handy Organization. *Filmstrips* *Getting Along at Home.* Eye Gate House, Inc.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	6. Have the pupils plan and present some games that all the members of the family can play together. 7. Have each pupil write a story about a favorite day with the family.	*Getting Along with the Family.* Society for Visual Education.
The family is part of the community.	1. Talk about the community and what the community is like. 2. Discuss activities that are taking place in the community. Identify how families can contribute to making the community a better place in which to live.	*Filmstrip* *The Home Community.* Encyclopaedia Britannica Educational Corp.

Area III CONSUMER AND ENVIRONMENTAL HEALTH (Early Childhood)

Field of Study COMMUNITY HEALTH (Early Childhood)

Objectives

To help the pupil to:

1. Understand the importance of community health.
2. Identify the members in the home, school, and community who work together to keep him safe and healthy.
3. Learn to work with others in assuming responsibility for the improvement of the health of the community.

COMMUNITY HEALTH (Early Childhood)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Each person must do his share to keep his community safe and clean.	1. Discuss the word *community*. Stress the importance of the community, beginning with the home and expanding to the world. 2. Discuss the correct way to use a drinking fountain to avoid the spread of germs. 3. Discuss the responsibility of each family member for keeping the home clean and neat. List ways the members can cooperate and work together. 4. Have the pupils role play situations depicting family members working to keep the home clean and attractive. 5. Have the pupils discuss how they can assist in keeping the lavatory clean. 6. Have the pupils demonstrate the correct way to wash hands and dispose of paper towels. 7. Discuss the importance of using public facilities correctly to avoid spreading communicable diseases. 8. Have the pupils plan school cleanup days in spring and fall. 9. Discuss the need for waste containers with the custodian. Have the pupils tell how they can help the custodian keep the school and grounds free from litter. 10. Have the children make a mobile of items one never lends (toothbrush, comb, face cloth, etc.).	*Books* Cornacchia, Harold J., *et al. Health in Elementary Schools.* Turner, Claire E. *Personal and Community Health.* Willgoose, Carl E. *Health Education in the Elementary School.* *Films* *Let's Be Clean and Neat.* Coronet Films. *Your Health in the Community.* Coronet Films.
Many people are helping to keep the world a healthy place in which to live.	1. Discuss the visit of the school physician in advance of the periodical health examination. List ways he helps to keep people healthy.	*Books* Anderson, C.L. *Community Health.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	2. Discuss ways the electrician and the plumber protect the health of the family and the community. 3. Discuss the method used in the local community to dispose of waste and garbage. Invite a member of the sanitation department to visit and talk about the family's responsibility in taking care of waste. 4. Discuss the problem of controlling the increase of insects and rodents in a neighborhood and the people who help in solving this problem. 5. Discuss the importance of the hospital in the community. Have the pupils role play some of the hospital personnel with whom they are familiar. 6. Discuss the importance of keeping swimming pools and bathing areas clean and safe. 7. Have the pupils discuss the role of the policeman, fireman, telephone man, and others in keeping the community safe and clean. 8. Talk about what life would be like in a community without community helpers. 9. Take the pupils on a visit to a local dairy to see how milk is processed. 10. Have the pupils prepare a mural showing community helpers at their jobs. 11. Have the pupils make favors for the children's ward of the local hospital and/or patients at a local nursing home. 12. Invite a visiting nurse to discuss how she serves people in the community.	Byrd, Oliver E., *et al. Health* (2). Rey, H.A., and Rey Margaret. *Curious George Goes to the Hospital.* Richmond, Julius B., *et al, Health and Growth* (2). *Films* *A Community Keeps Healthy.* Bailey-Film Associates. *A Community Keeps House.* Bailey-Film Associates. *Health Helpers.* Encylopaedia Britannica Educational Corp. *Health - You and Your Helpers.* Aims Instructional Media Services, Inc. *The Doctor.* Encylopaedia Britannica Educational Corp. *Your Friend the Doctor.* Coronet Films. *Filmstrips* *Community Helpers for Health.* Eye Gate House, Inc. *The School Nurse.* McGraw-Hill Book Company. *Pamphlet* "Your Friend the Doctor." American Medical Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Many organizations work to make the community safe and healthy.	1. Discuss how hospital, clinic, nursing agency, laboratory, and health department help to keep the community safe and healthy. 2. Have the pupils collect pictures of people in others lands who need the help of UNICEF. 3. Have the pupils draw a mural showing the local organizations involved in community health and safety. 4. Have the pupils collect pictures showing poverty and famine in other parts of the world. Discuss the purpose of the World Health Organization, the Red Cross, CARE, the Peace Corps, Hope Ship, and UNICEF.	*Film* *Water for the City.* Bailey-Film Associates. *Filmstrip* *Waste Disposal for the Community.* Encyclopaedia Britannica Educational Corp.
Laws and regulations are necessary to protect the health of everyone.	1. Discuss the need for regulations in the home (keeping the lavatory and areas where food is kept as clean as possible, regular disposal of waste materials, etc.). 2. Have the children make a list of regulations that are essential in keeping the school safe and clean. 3. Have the pupils plan and draw posters showing regulations necessary for keeping the school and community safe and clean. 4. Discuss the need for regulations in restaurants. Visit a restaurant to see the regulations being carried out (preparation of food, washing dishes, service of food, etc.). 5. Have the school nurse or doctor discuss the various immunization procedures that are essential for children in this age group. 6. Have the pupils visit a supermarket and talk with the manager about regulations for food handling, packaging, and refrigeration.	

Area III CONSUMER AND ENVIRONMENTAL HEALTH

Field of Study ECOLOGY (Early Childhood)

Objectives

To help the pupil to:

1. Understand that there are people and agencies helping to make the environment a safe and healthy place in which to live.
2. Realize that each person can influence the environment in which he lives.
3. Appreciate that each individual is affected in a variety of ways by his environment.

ECOLOGY (Early Childhood)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Everyone should be alert to his surroundings.	1. Have the pupils look around the room and discuss whether it is clean, has enough light, and is free from litter. 2. Have the pupils take a walk around the school and upon returning to the classroom make a list of things they saw that relate to their environment and their health (litter, smoke, dirty buildings, dogs without leashes, stray cats, etc.). 3. Have the children draw pictures of their surroundings and explain the content of their pictures to the class. 4. Discuss the reasons for keeping the home clean and free from hazards. 5. Discuss the chores the children perform at home to help keep it clean. 6. Have the pupils make waste baskets to take home. 7. Have the pupils take a walk around the neighborhood to discover interesting things in the environment. Have them make a mural of the things that particularly interested them. 8. Have the pupils observe the skyline for smoke and polluted air.	*Book* Local Tuberculosis and Respiratory Disease Association. *Don't Breath that Air.* (Drawing and Coloring Book)
All living things depend upon the environment and upon one another.	1. Have the pupils prepare a bulletin board showing a variety of birds and animals familiar to them. Talk about how the birds and animals live. 2. Have each child make a chart using the sun, air, water, plants, animals, and humans to show the "web of life." 3. Have the pupils grow seeds under different conditions.	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	(1) Ideal conditions. (2) Without water. (3) Without sunlight. (4) In a plastic bag without air or water. Compare the results and discuss the importance of the environment to life.	
	4. Discuss the reasons why people should not destroy natural vegetation and why they should care for flowers and trees.	
One's health is affected by one's surroundings.	1. Display pictures showing areas that are clean and areas that are littered and dirty. Discuss the importance of cleanliness in helping to keep people healthy.	
	2. Discuss the importance of maintaining the correct temperature in the classroom.	
	3. Have the pupils conduct an experiment using lights and window shades to determine the best lighting for work, play, and rest.	
	4. Demonstrate the use of a light meter and how light can be measured.	
	5. Have the pupils discuss how noise can affect a person's health.	
	6. Make a tape recording of the sounds in the classroom during a noisy period. Play the tape to the class and discuss how excessive noise affects different people.	
	7. Discuss occasions when noise can be fun and when it can be irritating.	
	8. Discuss the fact that noise can prevent people from getting proper rest and sleep.	
	9. Observe and discuss the environmental features of the school building (heating system, ventilators, windows, etc.).	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	10. Have the pupils make posters showing how the environment can affect the health of people in the community.	
Diseases may be caused by polluted air, water, and food.	1. Have the pupils discuss the causes of air pollution (automobiles, industrial plants, leaf and trash burning, smoking, etc.). 2. Have the pupils identify the ponds, lakes, and rivers in the community and discuss whether the water in these areas is safe to drink or to swim in. 3. Have the pupils visit the sanitary landfill area or incinerator in the community and discuss their importance to the environment.	*Books* Elting, Mary. *Water Come, Water Go.* Feilen, John. *Air* Massachusetts Petroleum Council. *Clean Streets, Clean Water, Clean Air.* Mattison, C. W., and Alvarez, Joseph. *Man and His Resources in Today's World.*
Each person can help to improve his environment.	1. Make a list of chores to be performed in the classroom. Let the pupils take turns doing the different chores. 2. In the fall and spring have the pupils plan and conduct a "clean-up" campaign to clean up the school grounds. 3. Have the pupils role play situations showing ways to improve the home environment. 4. Allow time at the end of the school day for each child to assist in making the classroom tidy before leaving.	*Book* Chester, Michael. *Let's Go to Stop Air Pollution.* *Film* *Let's Be Clean and Neat.* Coronet Films. *Filmstrip* *Beginning Responsibility: Doing Things for Ourselves at School.* Coronet Films.
Many people are now working to improve the environment.	1. Have the children bring in pictures of community helpers who work to keep the environment clean. 2. Discuss the importance of the garbage collector in the community. 3. Discuss the work of the men who clean the community streets.	*Film* *Health Helpers.* Encyclopaedia Britannica Educational Corp.

Area IV SAFE LIVING

Field of Study FIRST AID AND EMERGENCY PROCEDURES (Early Childhood)

Objectives

To help the pupil to:

1. Recognize serious injury and know what to do for an injured person.
2. Acquire an awareness of methods of protection against hazards in the environment.
3. Understand that there are people and agencies helping to make the environment a safe and healthy place in which to live.

FIRST AID AND EMERGENCY PROCEDURES (Early Childhood)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Different kinds of hazards are present in the environment.	1. Have the pupils define the word *hazard* and discuss the hazards they can relate to in their own environment. 2. Discuss the danger of patting strange animals and what to do if bitten by one. 3. Talk about accidents that occur in school and how they can be prevented. 4. Show pictures or drawings of poisonous snakes, insects, and plants to the children. Discuss them as hazards in the community. 5. Have the children observe hazards around their homes and discuss them the next day.	*Books* Byrd, Oliver E., *et al. Health (1-2).* Cornacchia, Harold J. *Health in Elementary Schools.* Willgoose, Carl E. *Health Education in the Elementary Schools.* *Poster* American National Red Cross. *Time to Learn.*
It is important to know what to do when an emergency occurs. 1. In the event of an accident: a. Have the injured person lie down b. Look for serious bleeding c. Send a friend to an adult for help d. Except for those assisting, keep people away from the injured person 2. In the event of a fire: •a. Notify an adult b. Get out of the building as quickly as possible	1. Discuss what might be done if a member of the family falls and is injured. 2. Discuss the steps to take when an accident occurs. 3. Discuss why an injured person should be kept warm. 4. Have the pupils demonstrate how to keep an injured person warm. 5. Plan a fire drill with the principal. Discuss the school regulations in the event of a fire. 6. Discuss what can be done at home if a fire occurs. 7. Discuss how to report a fire by telephone. 8. Demonstrate how to roll up in a blanket if on fire. 9. Demonstrate how to smother a fire and how to treat minor burns with the assistance of an adult.	*Book* Richmond, Julius B., *et al. Health and Growth (3).* *Films* *Fire-Exit Drill at Our School.* Coronet Films. *Safety on Our School Bus.* Encyclopaedia Britannica Educational Corp. *Safety with Fire.* Coronet Films *Filmstrip* *Safe and Sound at School.* Society for Visual Education. *Pamphlets* "A Formula for Child Safety." Metropolitan Life Insurance Company. "First Aid Guide." Johnson and Johnson.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	10. Have the pupils plan a bulletin board around the theme "Fire Drill." 11. Discuss incidents which may occur in or near the water. Role play emergency procedures illustrating good first-aid techniques. 12. Discuss the need for a civil defense drill and demonstrate the procedures. 13. Have the pupils role play an emergency which might occur on the school bus. 14. Invite a representative from the local civil defense organization to discuss procedures in an emergency.	"First Aid Now." Johnson and Johnson.
The telephone is most important in seeking help when an emergency occurs.	1. Have a pupil demonstrate the use of the telephone in an emergency. 2. Permit the children to practice emergency telephone calls. 3. Have the children make a list of emergency numbers to take home.	
Minor injuries usually require only the attention of a trained person.	1. Invite a nurse to demonstrate how she administers first aid in school. 2. Make up a simple first-aid kit that children can use with adult supervision. 3. Demonstrate the method of immobilizing an arm when a bone may be broken. Stress the importance of an adult doing this as an emergency measure. 4. Role play treatment of simple injuries (burns - cold water; poison ivy - soap, calamine lotion). 5. Have each child aided by his parents check the medicine cabinet at home to see if the basic first-aid items are included.	*Book* Thackston, John A., and Thackston, James F. *Health Begins at Home.* *Films* *The Simple Accident.* Sid Davis. *Sniffy Escapes Poisoning.* Henk Newenhouse.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	6. Discuss first-aid procedures to follow in the event of a dog bite.	
Major injuries usually require the attention of a doctor.	1. Invite the school doctor or nurse to talk about the importance of calling the doctor for major emergencies. 2. Invite a police or fire department first-aid instructor to bring an ambulance or rescue company to school to display survival equipment. 3. Discuss the importance of keeping people away from the scene of an accident. 4. Have the children role play a doctor or nurse attending a child who has been injured.	
It is important to know how to assume responsibility for personal safety and the safety of others.	1. Discuss how one can be responsible for his safety and the safety of others. 2. Show the film *Policemen and Firemen.* Discuss how these people are responsible for the health and safety of others. 3. Discuss the importance of staying with a "buddy" when away from home and not supervised by an adult. 4. Discuss the reasons for avoiding strange animals, people, and plants and what to do if one is encountered. 5. Dramatize what should be done if one is lost. (Have each child identify himself and give his address and telephone number.)	*Film* *Policemen and Firemen.* Society for Visual Education. *Filmstrips* *Beginning Responsibility: Doing Things for Ourselves at School.* Coronet Films. *Let's Be at Home in the Water.* McGraw-Hill Book Company.
Many people prepare themselves to assist others in the event of a disaster.	1. Discuss the various possibilities for community emergencies (fires, floods, hurricanes, etc.). 2. Have the pupils make a list of people in the community who help to keep the community safe	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	(local Red Cross workers, hospital personnel, environmental engineers, civil defense leaders, local health department workers, police, firefighters).	
	3. Have the pupils look for things and places in the community that are not safe. Discuss the people to whom such information must be reported.	
	4. Discuss what can happen to individuals, families, and towns during a catastrophe.	
	5. Invite a member of a Red Cross disaster team to discuss the work of the Red Cross during emergencies.	
	6. Have the pupils identify the civil defense organization in the local community (location, person in charge, and telephone number).	

MIDDLE GRADES

Area I PHYSICAL HEALTH

Field of Study **BODY STRUCTURE AND FUNCTION** (Middle Grades)

Objectives

To help the pupil to:

1. Understand that the body is a chemical factory made up of many specialized, interrelated parts.
2. Understand and appreciate the functions of the various body systems.
3. Appreciate the uniqueness of the human body and respect its potentials and limitations.

BODY STRUCTURE AND FUNCTION (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Body cells differ and perform various functions.	1. Have the pupils plan a booklet of information on the structure and function of the body. 2. Discuss the fact that the body is made up of billions of cells of different kinds. 3. Have a few pupils read and report on the different kinds of cells in the body. 4. Discuss the importance of healthy cells to the body.	*Books* Byrd, Oliver E., *et al. Health (4-6).* Cornacchia, Harold J., *et al. Health in Elementary Schools.* Irwin, Leslie W., *et al. Finding Your Way.* Willgoose, Carl E., *Health Education in the Elementary School.* *Filmstrips* *Cell Nuclei Discoveries.* McGraw-Hill Book Company. *Kinds of Cells.* McGraw-Hill Book Company. *The Human Cell.* Local Cancer Society.
Body systems are developed from cells, tissues, and organs.	1. Discuss the different kinds of tissues in the body. 2. Have each child draw a picture of one of the organs of the body. Identify the manner in which a series of organs form a body system. 3. Discuss the word *system* in terms of identifying the various systems of the body. 4. Discuss advances in medicine and identify the parts of the human body for which replacements are becoming available.	*Book* American Medical Association. *The Wonderful Human Machine.* *Film* *Learning About Our Bodies.* Coronet Films. *Filmstrips* *The Body.* The Jam Handy Organization. *Systems of the Body.* Encyclopaedia Britannica Educational Corp. *You - The Human Being.* Encyclopaedia Britannica Educational Corp. *You - The Living Machine.* Encyclopaedia Britannica Educational Corp.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The circulatory system transports the blood throughout the body.	1. Discuss the word *transport* as it relates to the circulatory system. 2. Have each pupil make a simple stethoscope by using a funnel and rubber tubing. The stethoscope can be used to listen to the heartbeats of classmates. 3. Have the pupils review the parts of the heart and identify how the heart functions as part of the circulatory system. 4. Discuss the pulse and the circulatory system. Have each pupil count his pulsebeats for one minute and estimate the number of times the heart beats in a single day. 5. Borrow a stethoscope from the school physician or nurse and have each pupil listen to his heartbeat. 6. Have a few pupils read about and report on the work of Dr. William Harvey. 7. Have the pupils explore the effect of fatigue, food, rest, disease, emotions, and exercise on the pulsebeat.	*Kit* *Human Body Kit.* The Instructor Publications, Inc. *Pamphlet* "My Growth Record." New England Dairy and Food Council. *Tape* *Spare Parts for People.* Society for Visual Education. *Books* Byrd, Oliver E., *et al. Health (5-6).* Irwin, Leslie, *et al. Understanding Your Needs.* Richmond, Julius B., *et al. Health and Growth (6).* *Chart* *Heart and Circulatory System.* Local Heart Association. *Film* *Heart, Lungs, Circulation.* Coronet Films. *Filmstrips* *The Heart - How It Works.* McGraw-Hill Book Company. *You and Your Growth.* The Jam Handy Organization. *Model* *Heart.* Local Heart Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		Pamphlets "How the Doctor Examines Your Heart." Local Heart Association. "Your Heart." Local Heart Association.
The digestive system is made up of a series of organs.	1. Show a chart of the digestive system and have the pupils identify the various organs which contribute to digestion. 2. Have each child draw an outline of the body on a large piece of paper, draw in the digestive system, and color the different organs. 3. Discuss how each organ of the digestive system functions in digesting food. 4. Have the pupils read and report on the fact that good habits assist in good digestion. 5. Discuss the effect of emotions on digestion.	*Books* Byrd, Oliver E., *et al. Health (5).* Irwin, Leslie W., *et al. Understanding Your Needs.* Richmond, Julius B., *et al. Health and Growth (6).* *Films* *Digestion in Our Bodies.* Coronet Films. *Your Food and Digestion.* The Jam Handy Organization. *Filmstrip* *The Digestive System.* Eye Gate House, Inc. *Pamphlet* "How Your Body Uses Food." New England Dairy and Food Council.
The endocrine system regulates the chemical action of the body.	1. Have each pupil draw an outline of the body, locate the endocrine glands, and label them. 2. Discuss the function of the endocrine glands and the importance of these glands to the body's structure and function.	*Books* Byrd, Oliver E., *et al. Health (4-5).* Richmond, Julius B., *et al. Health and Growth (6).* *Film* *Endocrine Glands.* Encyclopaedia Britannica Educational Corp.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The excretory system is vital to the removal of body wastes.	1. Have the pupils define the terms *excrete, excretion,* and *elimination.* Discuss the fact that excretion is very essential for the human body. 2. Have the pupils draw diagrams of the excretory organs and label the parts. 3. Discuss the fact that the nervous system is vital to the respiratory and circulatory systems in removing gaseous wastes. 4. Discuss the hazards of using medicine to help the functioning of the excretory system without the doctor's advice. 5. Discuss the relationship between a well-balanced diet and the way the excretory system functions.	*Books* Byrd, Oliver E., *et al. Health (5).* Richmond, Julius B., *et al. Health and Growth (6).* *Films* *Digestion in Our Bodies.* Coronet Films. *Work of the Kidneys.* Encyclopaedia Britannica Educational Corp.
The muscular system provides various functions for the body. 1. Voluntary muscles 2. Involuntary muscles	1. Have each pupil identify the major muscles of the upper arm by clenching his fist and raising it to the shoulder. 2. Show the children pictures of the heart. Point out that the heart is a large muscle capable of moving blood throughout the body. 3. To demonstrate the action of the heart, have a pupil fill a plastic bottle with water, squeeze the bottle, and force the water out. Then have the pupils identify other muscles that aid digestion and breathing. 4. Discuss the meaning of the word *involuntary.* Relate the meaning to some of the involuntary muscles. 5. Have each pupil contract the muscles in one arm for a period of time. Discuss why muscles tire and sometimes become sore. 6. Discuss the importance of daily exercise for strengthening the muscles.	*Books* Byrd, Oliver E., *et al. Health (4).* Irwin, Leslie W., *et al. Understanding Your Needs.* Richmond, Julius B., *et al. Health and Growth (6).* *Film* *Muscles and Bones of the Body.* Coronet Films. *Filmstrip* *Your Bones and Muscles.* The Jam Handy Organization.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	7. Plan some vigorous activities that develop specific muscles and have the pupils perform the activities. 8. Bring an earthworm or snake to class. Compare the way man moves with the way the earthworm or snake moves.	
The nervous system is the most complicated system in the body.	1. Discuss the control system in Houston that is used to communicate with the astronauts. Relate this communication system to the nervous system. 2. Discuss the words *brain, nerves, motor, spinal cord, communication,* and *message.* 3. Show an illustration of the brain. Discuss the areas that control different kinds of communication. 4. Have the pupils draw diagrams of nerve cells. 5. Discuss the variety of messages that can go to the brain in one minute. 6. Discuss the sense organs as part of the nervous system. 7. Have the pupils list specific ways of protecting the nervous system. 8. Play a game in which a child follows directions. Discuss and evaluate the child's response to the directions.	*Books* Byrd, Oliver E., *et al. Health (5).* Irwin, Leslie W., *et al. Understanding Your Needs.* Richmond, Julius B., *et al. Health and Growth (6).* *Films* *Fundamentals of the Nervous System.* Encyclopaedia Britannica Educational Corp. *Human Body: The Nervous System.* Coronet Films. *Filmstrips* *The Nervous System.* McGraw-Hill Book Company. *Nervous System.* Young American Films.
The reproductive system permits the human being to produce his own kind.	1. Show the pupils various forms of life: (1) One celled animals. (2) Spores from mosses and ferns. (3) Yeast. (4) Insects. (5) Animals (pets).	*Books* American Medical Association. *The Miracle of Life.* Boyer, Donald A. and Brandt, Elizabeth R. *Human Growth and Reproduction.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	Discuss the fact that each form of life reproduces an organism like itself. 2. Have the pupils observe maleness and femaleness in the structure of some plants. Discuss how fertilization takes place. 3. Discuss the asexual reproduction of such lower forms of life as sea sponges and star fish. 4. Discuss how frogs, reptiles, and birds reproduce. 5. Have the pupils identify mammals and discuss the developmental process of the young. 6. Discuss changes that occur as a person grows and develops. 7. Have the pupils view and discuss a film on human growth and development. 8. Discuss the changes that occur in the body during puberty. 9. Have the pupils view and discuss a film on menstruation. 10. Outline the stages of growth of the human embryo from fertilization to birth. 11. Discuss the dependency of the young on their parents.	Irwin, Leslie W., *et al. Choosing Your Goals.* Lerrigo, Marion O., and Southard, Helen. *A Story About You.* Richmond, Julius B., *et al. Health and Growth (6).* *Films* *The Human Body: Reproductive System.* Coronet Films. *It's Wonderful Being a Girl.* Personal Products Company. *The Story of Menstruation.* Kimberly-Clark Corporation. *Your Body During Adolesence.* McGraw-Hill Book Company. *Pamphlet* "Why Girls Menstruate." American Medical Association.
The respiratory system gives life to the body.	1. Have the pupils look up the words *respiratory, breathing, oxygen, oxidation,* and *lungs* in a dictionary. 2. Using a stopwatch, time the pupils for one minute. Have them breathe and tell how many times they breathed in. 3. Using a diagram of the respiratory system, discuss the various parts.	*Book* Byrd, Oliver E., *et al. Health (5).* *Films* *Heart, Lungs and Circulation.* Coronet Films. *Learning About Your Nose.* Encyclopaedia Britannica Educational Corp.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	4. Have the pupils make a model of lungs by using a plastic container, a "Y" tube, and two balloons. 5. Discuss the function of the nose, the pharynx, and the trachea in the breathing process. 6. Have the pupils define the words *inhale* and *exhale*. Discuss the relation between the diaphragm and the nervous system. 7. Discuss the importance of protecting the respiratory system against infection. 8. Have each pupil draw a diagram of the lungs and label the various parts. 9. Plan an experiment to show how carbon dioxide is exhaled. Have a pupil blow through a straw placed in a beaker of lime water. The cloudy appearance indicates that carbon dioxide has been added. 10. Demonstrate lung expansion by measuring the size of the chest of a pupil before and after he has taken a deep breath. 11. Discuss why it is impossible to hold one's breath over a long period of time. 12. Discuss the effect of the environment on the respiratory system.	*Filmstrip* *Your Heart and Lungs.* The Jam Handy Organization.
The skeletal system serves several purposes. 1. Axial skeleton 2. Appendicular skeleton	1. Have the pupils examine a variety of bones and notice the various shapes. Discuss the purpose bones serve. 2. Have the pupils identify the importance of the skull. 3. Have the pupils compare each type of joint to something in the environment. Arrange il-	*Books* Byrd, Oliver WE., *et al. Health (6).* Richmond, Julius B. *Health and Growth (6).* *Chart* *The Skeletal System.* Cambosco Scientific Company, Inc.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	lustrations of the various types on the bulletin board. 4. Have the pupils draw pictures of different bones. Discuss the variety of shapes and forms. Compare them with shapes and forms in nature. 5. Have the pupils make puppets with joints to separate the body segments. They can use the puppets to demonstrate correct posture and efficient body movements.	*Film* *The Body Machine - Bone Structure.* McGraw-Hill Book Company. *Filmstrips* *Straight and Tall.* Young America Films. *Your Bones and Muscles.* Eye Gate House, Inc.
One's habits and behavior affect the function of the body systems.	1. Discuss the interrelatedness of the various body systems. 2. Have the pupils list some health habits on the chalkboard. Discuss the fact that poor health habits can directly or indirectly affect the various body systems. 3. Discuss the contents of the tape *The Human Clock* and the effect that speed of travel has on the body systems.	*Tapes* *The Human Body.* Society for Visual Education. *The Human Clock.* Society for Visual Education.

Area I PHYSICAL HEALTH

Field of Study CLEANLINESS AND APPEARANCE (Middle Grades)

Objectives

To help the pupil to:

1. Understand the importance of body cleanliness and its relationship to good health.
2. Understand the relationship between a good appearance and the total well-being of an individual.
3. Take pride in his personal appearance.
4. Develop good health in daily living.

CLEANLINESS AND APPEARANCE (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Many parts of the body require care. 1. Hair 2. Hands and feet 3. Eyes and ears 4. Skin 5. Teeth, mouth, and nose	1. After the class has compiled a list of good grooming habits, have each pupil check his own daily grooming habits against the class list. 2. Invite the school nurse to discuss habits of cleanliness, including toilet habits. 3. To demonstrate the presence of oil on the hair, cover a hairbrush with a piece of nylon cloth and ask a volunteer to brush his hair. Discuss the effects of oil on the hair. 4. Discuss appropriate hair styles for boys and girls. 5. Have the pupils make posters on the personal care of the body. 6. Discuss how posture reflects a person's feelings. 7. Demonstrate the use of a nail file, showing how to shape the nails in order to avoid cuts and hangnails. 8. Discuss clothing and makeup worn by people in the entertainment field. 9. Discuss advertisements of grooming products geared to teen-age buyers.	*Books* Byrd, Oliver E., *et al. Health (4-6).* Cornacchia, Harold J., *et al. Health in Elementary Schools.* Irwin, Leslie W., *et al. Dimensions in Health Series: Finding Your Way. Understanding Your Needs.* Willgoose, Carl E. *Health Education in the Elementary School.* *Films* *Care of the Hair and Nails.* Encyclopaedia Britannica Educational Corp. *Healthy Feet.* Coronet Films. *Let's Be Clean and Neat.* Coronet Films. *Your Posture.* McGraw-Hill Book Company.
The skin requires proper care. 1. Regular bathing 2. Conditions requiring special care a. Acne b. Allergies c. Eczema	1. Have the pupils study their skin under a magnifying glass, observing the pores and the lines. 2. Enlarge a diagram of the skin and have the pupils label the layers. 3. To demonstrate that dirt remains on the skin, have a pupil rub the back of his hand with a small piece of white cloth dipped in alcohol. 4. Discuss the fact that pigment gives color to the skin.	*Books* Byrd, Oliver E., *et al. Health (4-6).* Elgin, Kathleen. *The Human Body: The Skin.* Irwin, Leslie W., *et al. Dimensions in Health Series: Finding Your Way. Understanding Your Needs.* Kostant, Goerge H. *Skin Care.* *Chart* *Skin Plaque.* Cambosco Scientific Company, Inc.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	5. Have a pupil report on the work of the sweat glands. 6. Discuss the importance of preventive measures and proper care to avoid the spread of impetigo. 7. Discuss the relationship of a proper diet to healthy skin. 8. Discuss the effects of overexposure to the sun. Discuss the care that should be given to the skin during the winter months.	*Films* *Care of the Skin.* Encyclopaedia Britannica Educational Corp. *Healthy Skin.* Coronet Films. *Filmstrips* *Your Skin and Its Care.* Popular Science. *Care of the Skin.* Encyclopaedia Britannica Educational Corp.
Clothing reflects the personality of each individual. *Clothing should be clean, comfortable, and suited to different weather conditions.*	1. Discuss the importance of clothes in helping the body maintain a constant temperature. 2. Discuss why heavy outdoor clothes should be avoided in the classroom. 3. Have the pupils draw up guidelines for proper dress for different occasions. 4. Discuss the fact that clothing indicates modesty and respect for the body. 5. Have a pupil report on selecting clothes to suit the weather. 6. Have the pupils compare the clothing worn by children in Massachusetts with that worn by children attending school in tropical countries. 7. Discuss the importance of clothing fitting the body without binding. 8. Have the pupils bring in various fabrics. Decide which ones can be washed and which have to be dry cleaned. 9 Have the pupils plan and arrange a bulletin board of various types of material suited to different weather conditions.	*Books* Byrd, Oliver E., *et al. Health (4-6).* Irwin, Leslie W., *et al. Dimensions in Health Series: Finding Your Way. Understanding Your Needs.* Thackston, John A., and Newsom, William T. *Aiding Our Health.* *Film* *Choosing Clothes for Health.* Coronet Films. *Filmstrip* *You and Your Clothes.* Young America Films.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	10. Discuss the fact that children at this age level can be responsible for caring for their own clothes and changing into play clothes for physical education and play after school. 11. Discuss ways of helping clothe people who cannot afford to dress adequately. 12. Role play situations that call for special clothes (jobs, special occasions, etc.). 13. Discuss how clothing reflects one's personality.	
Body cleanliness and personal appearance are important to personal pride. 1. Body care 2. Clothing selection and care	1. Have the pupils make a chart listing the things that must be done regularly for good personal grooming. 2. Have the pupils find words that mean the same as cleanliness. 3. Discuss the meaning of personal pride and how it relates to a person's image. 4. Discuss how keeping oneself clean and neat helps to increase self-respect and improve relationships with others.	*Film* *Posture Habits.* Coronet Films.
Cleanliness and good grooming show consideration for others.	1. Discuss the importance of good health habits when one has a cold. 2. Have the pupils draw posters showing ways to prevent the spread of communicable diseases such as colds and impetigo.	*Films* *Cleanliness and Health.* Coronet Films. *Your Cleanliness.* Young America Films. *Filmstrip* *Keeping Clean.* McGraw-Hill Book Company.

Area I **PHYSICAL HEALTH**

Field of Study DENTAL HEALTH (Middle Grades)

Objectives

To help the pupil to:

1. Realize the importance of a healthy mouth.
2. Learn the classification, structure, and function of teeth.
3. Become aware of individual dental problems and preventive measures.
4. Appreciate the work of individuals providing dental care.
5. Assume responsibility for the care of his own teeth.

DENTAL HEALTH (Middle Grades)

Concepts and Primary Concerns

It is important to have a healthy mouth.

1. Factors contributing to dental decay
   - a. Bacteria
   - b. Acid or saliva
   - c. Natural susceptibility of teeth to decay
   - d. Diet of carbohydrates
2. Preventive measures
   - a. Regular visits to dentist
   - b. Reduction of intake of sugary foods and drinks
   - c. Proper brushing
   - d. X-ray examinations
   - e. Fluoride application
3. Diseases of the mouth
   - a. Gingivitis
   - b. Periodontitis

Sample Learning Experiences

1. Discuss the causes and effects of dental caries.
2. Have the pupils examine some teeth showing flaws in the enamel. This indicates the beginning of dental decay.
3. Have the pupils use mirrors to examine their own teeth, and identify areas where food may become lodged.
4. Discuss the progression of decay through the enamel to the dentine and pulp.
5. Discuss the danger of a decayed tooth to the adjacent teeth.
6. Have the students use saliva cultures to conduct bacterial growth experiments showing the rapid growth of bacteria.
7. Obtain some X rays from a dentist and have the children look for fillings and decay.
8. Have the pupils illustrate the steps in tooth decay.
9. Invite a dentist or dental hygienist to discuss the cause, effect, and treatment of periodontal disease.
10. Discuss the importance of taking preventive measures at this age level to keep the mouth healthy.
11. Have the pupils review the proper technique for brushing the teeth, and use disclosing tablets to evaluate their brushing.
12. Have a pupil demonstrate the various methods of massaging the gums.
13. Have a group of pupils report on the benefits of flourides in dental health.
14. Discuss the value of each of the following in caring for the teeth:

Resources

Article

"The Requirements for Oral Hygiene." *Journal of School Health.* December, 1969.

Books

Bryd, Oliver E., *et al. Health (4-6).*

Irwin, Leslie W., *et al. Dimensions in Health Series: Finding Your Way. Understanding Your Needs.*

Richmond, Julius B., *et al. Health and Growth (6).*

Charts

Good Health Charts. The Instructor Publications, Inc.

Films

Save Those Teeth. Stanley Bowmar Co.

You Can Prevent Tooth Decay. American Dental Association.

Filmstrips

Health, Your Teeth and Their Care. American Dental Association.

Let's Talk About Your Teeth. Proctor and Gamble Company.

Pamphlets

"Dental Decay." United States Department of Health, Education and Welfare.

"Dental Health Facts for Teachers." American Dental Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	(1) Salt and water. (2) Apples. (3) Baking soda. (4) The water pik.	"Dental Health Teaching Outlines." American Dental Association. "Dental Health Today." Proctor and Gamble Company.
The teeth serve specific functions in the body. 1. Tissues of a tooth a. Crown (1) Enamel (2) Dentin b. Root (1) Cementum (2) Pulp 2. Deciduous teeth a. Number b. Function (1) Chewing (2) Helping speech (3) Maintaining space for permanent teeth (4) Creating pleasing appearance 3. Permanent teeth a. Number b. Care (1) Brushing (2) Visiting the dentist (3) Choosing food wisely 4. Kinds of teeth and their functions a. Incisors (cutting) b. Cuspids (tearing) c. Bicuspids (tearing and cutting) d. Molars (chewing and grinding)	1. Have groups of children investigate the following: (1) Teeth of animals and their shapes and functions. (2) Teeth of early man. 2. Have the children build a model or draw a picture of a cross section of a tooth and identify the parts. 3. Have the pupils look up the derivation of each of the following words: *periodontal, incisor, cusp,* and *dentin.* 4. Have the pupils make a chart of the different teeth. Note the approximate period of life that the teeth erupt. 5. Have each pupil draw a picture of the upper or lower set of teeth in his own mouth and identify them. 6. Discuss the function of the various kinds of teeth. 7. Have the pupils arrange a bulletin board displaying the different kinds of teeth and tools they most closely resemble. 8. If possible, have the pupils examine some teeth extracted by a local dentist.	*Books* Byrd, Oliver E., *et al Health (6).* Richmond, Julius B., *et al. Health and Growth (6).* *Charts* *Carlson Physiology Charts.* Welch Scientific Company. *Film* *Teeth - Their Structure and Care.* American Dental Association. *Filmstrips* *Let's Talk About Your Teeth.* Proctor and Gamble Company. *The Teeth.* American Dental Association. *The Teeth.* New England Dairy and Food Council. *The Teeth.* Stanley Bowmar Company. *The Teeth.* Enclopaedia Britannica Educational Corp. *The Teeth and Eating.* Encyclopaedia Britannica Educational Corp. *Tooth Structure.* Encyclopaedia Britannica Educational Corp.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Each individual is responsible for the growth and development of his teeth and gums. 1. Factors contributing to growth process a. Heredity b. Shedding of deciduous teeth too early c. Narrow dental arches d. Abnormal growth of jaws 2. Factors affecting growth and development a. Emotional disturbances b. Facial deformities c. Contributing causes to diseases of gums and teeth in later life d. Lack of proper diet due to inability to chew food	1. Invite a dentist to discuss the various factors that determine proper growth and development of teeth and gums. 2. Discuss why loss of teeth can cause people to be emotionally disturbed. 3. Discuss the importance of avoiding injury to the teeth and gums and of giving immediate attention to broken or loosened teeth. 4. Have a group of children make posters showing dental irregularities which may be caused by loss of teeth. 5. Discuss the importance of space maintainers and bridges for proper support of the teeth. 6. Discuss the following statement: Most dental caries can be eliminated.	*Article* "Your Family's Protection Against Tooth Decay." *Reader's Digest*. 1962. *Film* *Three Cheers for a Big Smile.* New England Dairy and Food Council.
Modern dentistry is providing new techniques and new services.	1. Have a few pupils do research and report on the history of dentistry. Compare the tools and techniques used in ancient times to those of today. 2. Have the pupils bring in newspaper articles on progress taking place in dental research. 3. Have a few pupils report on what is being done in research on fluorides. 4. Have the pupils find out what their own community is doing about fluoridation. 5. Invite a local dentist to discuss what is being done to prevent dental caries through fluoridation. 6. Have one or two pupils do research on the work of the orthodontist and other specialists using new techniques in dentistry.	*Book* Richmond, Julius B. *Health and Growth (6).*

Area I. PHYSICAL HEALTH

Field of Study DISEASES AND DISORDERS (Middle Grades)

Objectives

To help the pupil to:

1. Know that some diseases are caused by microorganisms.
2. Understand that the affect of microorganisms on the body depends on the state of one's health.
3. Learn some of the means by which some diseases can be prevented and controlled.
4. Be aware that some diseases and disorders are a result of body malfunction and cannot be transmitted.

DISEASES AND DISORDERS (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Some diseases are caused by microorganisms. 1. Bacteria a. Scarlet fever b. Diptheria c. Tetanus d. Gas gangrene e. Meningitis 2. Protozoa a. Malaria b. Amoebic dysentery c. Sleeping sickness 3. Viruses a. Measles b. Smallpox c. Chicken pox d. Mumps e. Poliomyelitis f. Influenza g. Infectious mononucleosis h. Rabies (hydrophobia)	1. Have the pupils define the word *disease* as it relates to the body. 2. Group the pupils and have each group do research on several infectious diseases. Their findings should be made available to the entire class through the use of oral presentation, the bulletin board, and resource corner. 3. Show slides of microorganisms, and have the pupils identify and draw some of the microorganisms they see. 4. Have the pupils grow bacteria in Petri dishes to demonstrate growth under specific conditions. 5. Have the pupils display illustrations of animals and insects that carry disease. 6. Have the pupils read about and report on the development of antibiotic drugs.	*Books* Byrd, Oliver E., *et al. Health (6).* *Golden Book Encyclopedia.* Irwin, Leslie W., *et al. Finding Your Way.* Leokum, Arkady. *Tell Me Why Series.* Thackston, John A., and Newsom, William T. *Health in Action.* *World Illustrated Encyclopedia.* *Film* *Why Foods Spoil.* Encyclopaedia Britannica Educational Corp. *Filmstrips* *Protozoa - One-Celled Animals.* Encyclopaedia Britannica Educational Corp. *Infectious Diseases - Causes and Defenses.* Encyclopaedia Britannica Educational Corp. *Pamphlets* "Influenza." Massachusetts Department of Public Health. "Measles." Massachusetts Department of Public Health.
A healthy body and good health habits help to prevent infection. 1. Mode of transmission of infectious diseases a. Respiratory system b. Circulatory system c. Gastro-intestinal system d. Open wounds	1. Have the pupils display pictures or drawings showing what to do when coughing or sneezing. 2. Have the pupils use posters, charts, and stories to tell how microorganisms are transmitted. 3. Have the pupils use transparencies to review the body systems.	*Books* Bauer, W.W. *Today's Health Guide.* Irwin, Leslie W., *et al. Choosing Your Goals.* Richmond, Julius B., *et al. Health and Growth (6).* Thackston, John A., and Newsom, William T.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
2. Healthy body necessary to fight infection a. Rest b. Food c. Exercise d. Proper medical care	4. Have the pupils use skits, role playing, and mobiles to review how rest, food, exercise, and proper medical care help to promote a healthy body and to prevent diseases. 5. Have the pupils prepare posters illustrating ways to protect others from communicable diseases. 6. Discuss the importance of discarding disposable tissues in a sanitary way (in paper or plastic bags.)	*Developing Our Health.* *Filmstrips* *Circulatory System.* McGraw-Hill Book Company. *Digestive System.* McGraw-Hill Book Company. *Respiratory System.* McGraw-Hill Book Company. *Films* *The House Fly and Its Control.* Coronet Films. *The Mosquito and Its Control.* Coronet Films. *Transparencies* *Circulatory System.* Instructo Company. *Digestive System.* Instructo Company. *Respiratory System.* Instructo Company.
Immunizations can help prevent and control some infectious diseases. 1. Health pioneers a. Pasteur b. Salk c. Sabin d. Jenner e. Lister f. Others 2. Vaccines a. Measles b. Polio c. Mumps d. Rabies e. Tetanus 3. Tests for tuberculosis	1. Have the pupils define the word *vaccine.* 2. Have each pupil write a short biography of a health pioneer. These can be compiled into a book to be shared by the class. 3. Have each pupil make a chart listing the various vaccines. Beside each he should tell who discovered it and how it is used. 4. Discuss the importance of maintaining immunity (booster shots).	*Books* Thackston, John A., and Newsom, William T. *Aiding Our Health.* *World Book Encyclopedia.* *Films* *Health Heroes Series.* Metropolitan Life Insurance Company. *Filmstrip* *Avoiding Infection.* Encyclopaedia Britannica Educational Corp. *Pamphlet* "Communicable Disease Guide." Massachusetts

Concepts and Primary Concerns	Sample Learning Experiences	Resources
a. Tine b. Heaf c. Montoux		Department of Public Health.
The body has natural defenses against some diseases.	1. Discuss the term *natural immunity.* 2. Discuss the importance of the skin as protection against certain diseases. 3. Discuss what should be done when one is bitten by an animal.	*Books* Byrd, Oliver E., *et al. Health (4-6).* *Filmstrip* *Body Defenses Against Disease.* Encyclopaedia Britannica Educational Corp.
The individual, the home, and the community should be responsible for preventing the spread of disease and malfunction of the body.	1. Discuss how the spread of disease can be prevented. 2. Have the pupils identify ways the family can assist in preventing the spread of disease. 3. Have the pupils design posters identifying ways of preventing disease at the local, national, and world level. 4. Have the pupils arrange a bulletin board of current articles on emergency situations throughout the world (floods, earthquakes, storms).	*Book* Irwin, Leslie W., *et al. Understanding Your Needs.* *Films* *Health Heroes: The Battle Against Disease.* Coronet Films. *Your Health: Disease and Its Control.* Coronet Films. *Your Health in the Community.* Coronet Films.
Some diseases are caused by body malfunction and by unknown causes, in addition to microorganisms. 1. Cancer 2. Heart disease 3. Diabetes 4. Epilepsy 5. Arthritis	1. Invite the school nurse to demonstrate the use of the Clinitest in detecting diabetes and insulin in treating it. In addition, discuss the diet of the diabetic. 2. Have the pupils role play how to help a person experiencing an epileptic seizure. 3. Have the pupils read to find evidence linking cigarette smoking and lung cancer. Discuss the fact that cancer of the lungs might be avoided through good health habits and early detection.	*Books* Bauer, W.W. *Today's Health Guide.* Willgoose, Carl E. *Health Education in the Elementary School.* *Pamphlets* Arthritis Foundation. Epilepsy Society of Massachusetts. Local Cancer Society.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	4. Discuss the problem of respiratory disease control because of the changing environment.	Local Heart Association.
	5. Have the pupils identify diseases of the heart and circulatory system.	Local Tuberculosis and Respiratory Disease Association.
	6. Discuss the effect of exercise on the circulatory system. Demonstrate the change in the rate of the pulse before and after exercise.	
	7. Have a committee explore the factors which influence the normal functioning of the circulatory system (fatigue, rest, foods, smoking).	

Area I PHYSICAL HEALTH

Field of Study FITNESS AND BODY DYNAMICS (Middle Grades)

Objectives

To help the pupil to:

1. Understand the importance of total fitness for effective living.
2. Know the relationship of the body systems to body movement and posture.
3. Appreciate the need to maintain fitness in today's world.
4. Practice good habits in order to develop and maintain fitness.

FITNESS AND BODY DYNAMICS (Middle Grades)

Concepts and Primary Concerns

Total fitness is essential for effective living.

Sample Learning Experiences

1. Have the pupils define the word *fitness* and relate it to physical, mental, emotional, and social development.
2. Discuss qualities that identify total fitness (endurance, strength, energy, vivaciousness, productivity).
3. Discuss qualities that indicate a lack in total fitness (apathy, disinterest, indolence, unproductiveness.
4. Discuss the fact that the excessive use of drugs can affect the body and prevent a person from attaining total fitness.
5. Have the pupils relate good health practices to total fitness.
6. Have some pupils explore the effect of fatigue on a person's fitness.
7. Discuss the importance of a healthy body in combatting an unexpected emergency.
8. Discuss factors influencing social fitness (inter-personal relationships, good citizenship, cooperation, leadership).
9. Discuss the fact that emotional fitness involves adjusting to stress, learning to accept victory and defeat, possessing the courage to persevere and face danger.
10. Discuss the effect of exercise on the respiratory and circulatory systems.
11. Invite the school nurse to discuss the beneficial effects of exercise on the digestive and excretory systems.
12. Have the pupils draw pictures showing children with good posture.
13. Have the pupils make puppets showing good

Resources

Books

Byrd, Oliver E., *et al. Health Books (4-6).*

Kusinitz, Ivan, *et al. The Challenge of Physical Fitness.*

Thackston, John A., and Newsom, William T. *Aiding Our Health.*

Thackston, John A., and Newsom, William T. *Developing Our Health.*

Thackston, John A., and Newsom, William T. *Health in Action.*

Films

Exercise and Health. Coronet Films.

Posture Habits. Coronet Films.

Your Body During Adolescence. McGraw-Hill Book Company.

Your Posture. McGraw-Hill Book Company.

Filmstrip

Posture and Exercise. Encyclopaedia Britannica Educational Corp.

Your Child's Health and Fitness. American Association for Health, Physical Education and Recreation.

Pamphlets

"How Your Body Uses Food." New England Dairy and Food Council.

"Exercise and Fitness." American Medical Association.

"Physical Fitness." United States Government Printing Office.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	posture and poor posture. 14. Have the pupils create a play using the puppets and relating the content of the play to body systems, movement, and posture. 15. Permit the children to role play emotions through posture. 16. After he has assumed the correct posture, have each pupil walk about the room carrying a book on his head. 17. Have the pupils identify muscle tone as the foundation for further development of strength and skill. 18. Check to see that each child's desk and chair is fitted to him.	"Seven Paths to Fitness." American Medical Association. "The ABC's of Perfect Posture." New England Dairy and Food Council. *Transparencies* *Physical Activity.* 3M Company.
There is an important relationship between the body systems and movement and posture.	1. Show the pupils a model of a skeleton or a chart of the skeletal and muscular systems, and discuss the functions of the systems. 2. Discuss the fact that the skeletal and muscular systems are important to good posture. 3. Show pictures of people of all ages participating in a variety of activities including sports and dancing. 4. Discuss the fact that the skeletal and muscular systems permit participation in such activities.	*Books* Irwin, Leslie W., *et al. Dimensions in Health Series: Finding Your Way. Understanding Your Needs.*
Regular exercise contributes to body efficiency.	1. Discuss the importance of practicing an activity regularly in order to increase strength and skill. 2. Invite the physical education teacher to discuss and demonstrate good body mechanics in daily living. 3. Discuss the value of warm-up activities used	*Books* Best, Charles H., and Taylor, H.B. *Human Body: Its Anatomy and Physiology.* Howard, Edward D. *Calisthenics for Health.* Irwin, Leslie W., *et al. Choosing Your Goals.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	by coaches in advance of strenuous activities. Have the pupils try some warm-up activities. 4. Have the pupils select a variety of activities from very simple to more difficult and set up a daily schedule to perform them at home or at school. 5. Discuss the value of daily exercise in strengthening muscles. 6. Demonstrate the correct way to hold the body when lifting and carrying heavy objects. 7. Discuss how pets exercise. 8. Discuss what happens to the body when it is inactive. 9. Select a test item from the *AAHPER Youth Fitness Test Manual.* Demonstrate the skill and discuss how it can be measured. 10. Have the pupils list a number of activities that they may engage in at home. Include some that can be participated in by all members of the family. 11. Have the pupils arrange a bulletin board with pictures of men and women illustrating good form while participating in various activities. 12. Have some pupils report on how men kept physically fit in ancient time. 13. Have the pupils do research and report on calisthenics used in Sweden, Japan, Russia, Germany, and China.	*Films* *Fitness Skills for Children.* McGraw-Hill Book Company. *Learning Through Movement.* S-L Productions. *Physical Fitness and Good Health.* Walt Disney Productions. *Filmstrips* *Fitness: Exercises and Stunts.* Society for Visual Education. *Fitness: Team Games.* Society for Visual Education. *Health and Exercise.* Eye Gate House, Inc. *Pamphlets* "Exercise and Fitness." American Association for Health, Physical Education and Recreation. "Physical Fitness." American Medical Association. *Records* *Do Your Own Thing.* Educational Record Sales Company. *Exercises for the Classroom.* Educational Record Sales Company. *Physical Fitness Exercises for Boys.* Educational Record Sales Company. *Physical Fitness Exercises for Girls.* Educational Record Sales Company. *Tunes for Physical Fitness.* Educational Record Sales Company.
Each person should assume responsibility for his own degree of fitness.	1. Discuss the responsibility each person has to provide for his own total fitness through the use	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	of the services of doctors, nurses, and other health personnel. 2. Discuss the fact that participation in daily chores can assist in keeping the body fit. 3. Plan with the pupils a well-balanced daily schedule that includes exercise, relaxation, and sleep. 4. Have the pupils write about "My Daily Exercise."	

Area I PHYSICAL HEALTH

Field of Study SENSORY PERCEPTION (Middle Grades)

Objectives

To help the pupil to:

1. Learn the structure of the parts of the body relating to sensory perception.
2. Understand the interrelationship of the senses with other body parts.
3. Know the kinds of sensory defects and their prevention and care.
4. Develop an awareness of the need for taking care of his senses.

SENSORY PERCEPTION (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Knowledge of the parts of the eye provides a better understanding of the mechanics of vision. 1. Setting and protection a. Eye socket b. Eyebrow c. Eyelids d. Eyelashes e. Tear glands 2. Outer covering a. Sclera b. Cornea c. Conjunctiva 3. Inner parts a. Iris b. Lens c. Retina d. Aqueous humor e. Vitreous humor f. Choroid g. Optic nerve	1. Show a model of the eye, and discuss parts of the eye that are meaningful to pupils at this age level. 2. Have the pupils find pictures of eyes of various animals and discuss how the structure and setting of the eyes differ from human eyes. 3. Have each pupil label the parts of the eye on a mimeographed diagram. Discuss the functions of the parts. Demonstrate and discuss the process of vision which involves reflected light, the optic nerve, and the brain. 4. Compare the eye to a camera. 5. Discuss the common defects of vision: (1) Nearsightedness (myopia). (2) Farsightedness (hyperopia). (3) Color perception deficiency. 6. Help the pupils make a diagram showing how an image is transmitted to and interpreted by the brain. 7. Help the pupils construct a chart showing refraction errors and how they may be corrected by glasses. 8. Discuss the relationship of vision to balance. 9. Discuss the relationship between the senses of touch and vision.	*Books* Byrd, Oliver E., *et al. Health (5).* Heath, Charles D. *Human Biology.* Irwin, Leslie W., *et al. Finding Your Way.* White, Anne T., and Lietz, G.S. *Windows on the World.* *Films* *Health and Eyes.* Eye Gate House, Inc. *How Your Eyes Work.* The Jam Handy Organization. *Filmstrips* *Eyes - Their Structure and Care.* Coronet Films. *You and Your Eyes.* Encyclopaedia Britannica Educational Corp. *Tapes* *Is Seeing Really Believing?* Society for Visual Education. *Repairing Human Eyes.* Society for Visual Education. *Seasick in Space.* Society for Visual Education.
Good eye care habits are essential for good vision.	1. Discuss the importance of rest and exercise for good vision. 2. Have the children find out about recent regulations for safety lenses. 3. Discuss the relationship of diet to good vision. 4. Discuss the importance of acquiring good reading habits for good vision.	*Pamphlets* "Braille Alphabet." American Bible Society. "Care of Eyes." Metropolitan Life Insurance Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	5. Invite the school nurse to demonstrate the Massachusetts Vision Test. Discuss the purpose of the test and the need for pupils failing the test to have a special eye examination. 6. Discuss the work of eye specialists (ophthalmologist, optometrist, oculist). 7. Discuss proper care of the eyes. Invite the school nurse to discuss first aid for eye injuries. 8. Have the pupils design posters illustrating how to help prevent eye accidents. 9. Obtain some samples of Braille for the pupils to examine. 10. Have some pupils report on the selection and training of seeing-eye dogs. 11. Have a pupil report on the life of Helen Keller.	
Ears are the organs of hearing. 1. Outer ear a. Cartilage flap b. Auditory canal 2. Middle ear a. Ear drum b. Chain of bone c. Eustachian tube 3. Inner ear a. Cochlea b. Semicircular canals c. Auditory nerve	1. Have the pupils construct a model of the ear. 2. Have a pupil report on the life of Van Gogh. 3. Prepare a transparency of a diagram of the structure of the middle ear and another of the inner ear. Identify, label, and discuss the structures illustrated on the transparencies. 4. Discuss how hearing takes place. 5. Identify the terms *vibrations* and *sound waves.* Discuss the way in which parts of the ear work together to transmit sound waves to the brain. 6. Discuss the purpose of the fluid in the ear. 7. Have a pupil sit with his back to the class. Have other pupils make various noises. Ask the pupil with his back to the class to identify each sound and the direction it came from.	*Books* Byrd, Oliver E., *et al. Health (4).* Heath, Charles D. *Human Biology.* Irwin, Leslie W., *et al. Finding Your Way.* Stevens, S.S., and Warshofsky, Fred. *Sound and Hearing.* Wheatley, George M., and Hallcok, Grace T. *Health Observation of School Children.* *Chart* *The Ear.* Sonotone Corporation. *Films* *Our Senses and What They Do for Us.* Coronet Films.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	8. To demonstrate equilibrium, blindfold a pupil and have him stand still and erect for a few minutes. Have the class observe if he sways. Turn the pupil around several times and have him stand still again. Observe the results. 9. Demonstrate the action of sound waves by striking a tuning fork and holding it close to the surface of a full glass of water. (The sound waves will make the water ripple.) 10. Discuss the pleasure people get through the sense of hearing. 11. Have some pupils read and report on how various animals hear (bats, fish, grasshoppers).	*Your Ears.* Encyclopaedia Britannica Educational Corp. *Filmstrips* *How Your Ears Work.* The Jam Handy Organization. *You and Your Ears.* Encyclopaedia Britannica Educational Corp. *Pamphlets* "Hearing." Metropolitan Life Insurance Company. "Sound." Cambosco Scientific Company, Inc.
Good hearing depends on proper care of the ears.	1. Discuss the whisper test and the water test. 2. Plan for a demonstration of the audiometer test. 3. Discuss the correct way to blow the nose to prevent infection in the Eustachian tube. 4. Have the pupils list ways to care for and protect the ears. Stress the delicacy of the ear drum. 5. Have the pupils explore the methods used to help those who have hearing defects (hearing aids, sign language, lip reading). 6. Discuss the fact that the impulse of hearing originates in the ear and is interpreted in the brain. Relate this to hearing but not understanding a foreign language. 7. Discuss temporary hearing loss because of a cold or the accumulation of wax in the ear. 8. Have a pupil report on the life of Thomas Edison and his hearing problem.	*Books* Gilmour, Ann Bond, and Gilmour, James A. *Understanding Your Senses.* Heath, Charles D. *Human Biology.* Irwin, Leslie W., *et al. Finding Your Way.* Richmond, Julius B., *et al. Health and Growth (6).* *Pamphlets* "The Hard of Hearing Child and His Teacher." New York League for the Hard of Hearing. "Your Precious Ears." Warner Chilcott Laboratories.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	9. Have some pupils read and report on the effect of noise on a person's hearing.	
The senses of taste and smell are closely related. 1. Tongue a. Structure (1) Papillae (2) Taste buds (3) Nerve endings (4) Brain b. Four main tastes (1) Sweet (2) Salty (3) Sour (4) Bitter c. Other functions (1) Senses heat and cold (2) Senses texture of stubstances 2. Nose a. Structure (1) Path for air (2) Nerve endings (smelling cells) (3) Moist lining (4) Olfactory bulb and nerve leading to brain	1. Have the pupils draw a diagram of the tongue. 2. Have the pupils locate the areas of taste on the tongue by touching a cotton swab dipped in solutions of sugar, salt, vinegar, etc. to various areas of the gongue. Then have them complete the diagram of the tongue by labeling the areas of taste. 3. Have some pupils do research on the chemical changes that take place in food as it is chewed in the mouth. 4. Prepare a diagram of the nose. Have the pupils discuss and label the parts. 5. Blindfold volunteers and have them attempt to identify odors such as ammonia fumes, perfume, strong cheese, a rose, coffee. 6. Discuss what happens to the lining of the nose when a person has a cold. 7. Discuss how the sense of smell can serve to protect the body in some emergency situations.	*Books* Adler, Irving, and Adler, Ruth. *Taste, Touch, Smell.* Byrd, Oliver E., *et al. Health (4).* Irwin, Leslie W., *et al. Finding Your Way.* *Film* *Learning About Your Nose.* Encyclopaedia Britannica Educational Corp.
The sense of touch is important to life. 1. Outer part of skin (epidermis) a. Dead cells b. Some nerve endings 2. Underpart (dermis) a. Blood vessels b. Nerve endings c. Sweat glands d. Fat	1. Show the pupils a diagram of a cross-section of the skin. Discuss the parts that make up the skin. 2. Discuss the importance of nerve endings in the skin and how the brain interprets messages from the skin. 3. Have the pupils identify how the sense of touch serves as a signal system for the body.	*Books* Byrd, Oliver E., *et al. Health (4).* Irwin, Leslie W., *et al. Understanding Your Needs.* *Charts* *Carlson Physiology Charts.* The Welch Scientific Co.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	4. Discuss the fact that people who have lost their vision develop a more sensitive sense of touch than the sighted person.	*Skin Plaque.* Cambosco Scientific Company, Inc. *Kit* *Human Body Kit.* The Instructor Publications, Inc. *Filmstrip* *The Nervous System.* McGraw-Hill Book Company.

Area I PHYSICAL HEALTH

Field of Study SLEEP, REST, AND RELAXATION (Middle Grades)

Objectives

To help the pupil to:

1. Understand that relaxation, rest, and sleep are necessary for developing a strong, healthy body.
2. Appreciate the real value of sleep, rest, and relaxation.
3. Develop regular habits for a balanced program of activity, sleep, rest, and relaxation.

SLEEP, REST, AND RELAXATION (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The body requires sleep in order to function effectively. 1. Purpose a. Overcome fatigue b. Repair and build body c. Prevent disease 2. Personal requirements 3. Methods (night, naps)	1. Have the children survey their sleeping habits and tabulate and record the results. 2. Discuss the meaning of the word *sleep.* Identify how being asleep differs from being awake (suspension of consciousness). 3. Discuss why the body requires sleep and the importance of sleep as a defense against disease. 4. Invite a nurse or doctor to discuss the benefits of sleep. 5. Have the pupils observe how their pets sleep and the length of time they sleep. 6. Discuss what happens to the nervous and circulatory systems when a person sleeps. 7. Have the pupils make up poems about sleep. 8. Have the pupils act out situations that could interfere with a person sleeping. 9. Discuss why it is undesirable to take sleeping pills. 10. Discuss the desirability of changing clothes when going to bed. 11. Have the pupils role play getting ready for bed. 12. Have the pupils make a list of quiet activities that can be performed before bedtime to promote restful sleep. 13. Discuss why insufficient sleep affects one's feelings and performance. 14. Discuss why a clean and attractive room makes it more inviting to sleep.	*Books* Byrd, Oliver E., *et al. Health (4-6).* Irwin, Leslie W., *et al. Understanding Your Needs.* Richmond, Julius B., *et al. Health and Growth (6).* *Film* *Sleep for Health.* Encyclopaedia Britannica Educational Corp. *Filmstrips* *Getting Ready for Bed.* Popular Science. *Sleep for Health.* Encyclopaedia Britannica Educational Corp. *Pamphlet* "Sleep the Restorer." John Hancock Life Insurance Company. *Transparencies* *Sleep.* 3M Company.
	1. Have the pupils define the word *fatigue.* Talk about how rest can help to prevent fatigue.	*Books* Irwin, Leslie W., *et al. Dimensions in Health Series:*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
1. Thinking 2. Dreaming 3. Planning 4. Meditating	2. Discuss the importance of rest for children at this age level. 3. Discuss what can be done at home to permit family members to have periods of rest. 4. Discuss the fact that what is restful for one person may not be restful for another person.	*Finding Your Way. Understanding Your Needs.* Thackston, John A., and Newsom, M.D. *Developing Our Health.* Thackston, John A., and Newsom, M.D. *Health in Action.* *Filmstrips* *Rest and Sleep.* McGraw-Hill Book Company. *Sleep and Rest.* Popular Science.
Relaxation is necessary for good health. 1. Change of pace 2. Reduction of tension 3. Soothing activities a. Quiet games b. Reading c. Creating (art, music, poetry) d. Listening to music	1. Have the pupils define the words *relaxation* and *tension.* 2. Ask each child to discuss his favorite form of relaxation. 3. Demonstrate a variety of exercises that can help one to relax. 4. Have the children plan periods of relaxation for various days of the week. 5. Discuss the importance of hobbies as a form of relaxation. 6. Have the pupils plan a bulletin board around the theme Rest and Relaxation. 7. During the day, play recordings of restful and relaxing music. 8. Plan several periods for the pupils to work on hobbies of their choice.	

Area II MENTAL AND SOCIAL HEALTH

Field of Study FAMILY LIVING (Middle Grades)

Objectives

To help the pupil to:

1. Understand that the family is the basic structure of society.
2. Understand and appreciate that each person has a valuable contribution to make toward a happy family unit.
3. Assume his responsibility as an active participant in the family unit.

FAMILY LIVING (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Individual family units differ one from another. 1. American family structures a. The "typical" family b. One-parent family c. More than one generation unit d. No children e. "Adopted" family f. Brother-sister unit 2. Foreign family structures	1. Have each pupil identify his own family unit (father, mother, brothers, sisters, etc.). 2. Have the pupils identify the various family units within the classroom and discuss other possible family units. 3. Have each pupil write a story about "My Family." 4. Have the children read about families in foreign countries, and compare them with their own families. 5. Have the pupils collect pictures of families from around the world, and discuss similarities and differences. 6. Develop a reading list of books dealing with different kinds of families. Have each child select a book to read and draw scenes of his favorite parts. 7. Discuss current television shows dealing with the family.	*Books* Cornacchia, Harold J. *et al., Health in Elementary Schools.* Lerrigo, Marian O. *A Doctor Talks to 9-to 12-Year Olds.* Mead, Margaret, and Hayman, Ken. *Family.* Willgoose, Carl E. *Health Education in the Elementary Schools.* *Film* *Your Family.* Coronet Films. *Filmstrip* *Families Around the World* (Series). Encyclopaedia Britannica Educational Corp. *Transparencies* *Range of Family Characteristics.* 3M Company.
The responsibilities of family members differ. 1. Father's role 2. Mother's role 3. Child's role 4. Grandparents' role 5. Roles of others	1. Have the pupils write about the things they do that contribute to family living. 2. Have the pupils list activities that take place in the home. Discuss how they can assist in carrying out such activities. 3. Discuss how the child's role within the family unit has changed since his pre-school days. 4. Have the pupils role play the various individuals in a family unit. 5. Have the children plan a bulletin board showing various family members working individually and together as they assume responsibility for family living.	*Books* Byrd, Oliver E., *et al. Health (5).* Duvall, Evelyn Millis. *About Sex and Growing Up.* Irwin, Leslie W., *et al. Choosing Your Goals.* Osborne, Ernest G. *How to Deal with Parents and Other Problems.* *Films* *You and Your Parents.* Coronet Films. *Family Life.* Coronet Films.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	6. Have the children list different chores they perform at home. Then identify the special abilities of various family members. 7. Discuss ways the pupil has of showing the family that he is learning to assume responsibility. 8. Have each pupil plan a personal scrapbook "All About Me."	
Changes that occur in daily living affect family life. 1. Financial situations a. Budgets b. Earnings c. Purchases 2. Illness 3. Moving 4. Additional members 5. Education	1. Have the pupils identify events that may bring about change in a family. 2. Discuss ways a family with a minimum income can still enjoy family activities. 3. Have the children plan a trip to the supermarket. Discuss the expense involved for the family to shop each week. 4. Discuss the fact that cooperation on the part of all the family members is necessary when a family has to move. 5. Discuss the changes that take place in the family unit when a new baby arrives. 6. Discuss the need for each family member to cooperate at the time of illness. 7. Discuss the problems a family faces when one member goes away to school. 8. Discuss the fact that the health of each family member affects the well-being of the whole family.	*Books* Black, Algernon D. *The First Book of Ethics.* Limbacher, Walter J. *Becoming Myself.* Limbacher, Walter J. *Here I Am.* Limbacher, Walter J. *I'm Not Alone.* *Pamphlets* "Getting Along with Parents." Science Research Associates. "Life with Brothers and Sisters." American Social Hygiene Association. *Transparencies* *The Health and Happiness of the Family.* 3M Company.
Individuals in a family feel more secure when decisions are made and consequences are accepted.	1. Have the pupils list decisions they made the previous week. Discuss the appropriateness of the individual decisions made in various situations.	*Film* *Getting Along with Parents.* Encyclopaedia Britannica Educational Corp.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	2. Discuss the importance of being prepared to accept the consequences if a decision is not a favorable one. 3. Discuss occasions when parents should make decisions for the children. 4. Have the pupils role play several situations where the parents make decisions for the children. 5. Encourage pupils to deposit in a "problem box" descriptions of decisions made by the family. Use these to discuss family relationships. 6. Discuss the role of children in family discussions. 7. Discuss ways to avoid family conflicts and how to resolve any that may arise. 8. Have the pupils describe how they felt when they were reproved or unjustly punished by their parents.	
Wholesome, leisure-time activities contribute to a stronger family unit.	1. Have each pupil write a story telling how his family spends time together. 2. Have the pupils arrange a bulletin board showing various family members working and playing together. 3. Have the pupils plan a variety of indoor and outdoor activities that they can participate in with various members of the family. (Point out that a person need not join in all the family activities but can contribute to most of them.) 4. Discuss the importance of doing things with both friends and members of the family. 5. Discuss how pupils can contribute to plans for a family party.	*Filmstrip* *Family Fun.* Encyclopaedia Britannica Educational Corp.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	6. Have each pupil write about a special event in his family life.	
The family unit provides the basis for developing respect for the rights of others. 1. Sharing 2. Giving 3. Accepting 4. Respecting the right of privacy 5. Protecting the rights of others	1. Discuss some of the rights the pupils enjoy in the family. 2. Have the pupils make a list of the rights they consider to be most important. 3. Discuss the importance of family members having the right to privacy at certain times and the responsibility of sharing at other times. 4. Have the pupils list ways in which a family can be compared to a democracy.	*Book* Byrd, Oliver E., *et al.* *Health (6).* *Film* *Parents Are People Too.* McGraw-Hill Book Company. *Filmstrip* *Your Family and You.* The Jam Handy Organization.

Area III CONSUMER AND ENVIRONMENTAL HEALTH

Field of Study COMMUNITY HEALTH (Middle Grades)

Objectives

To help the pupil to:

1. Understand that individual and group efforts result in improved community health.
2. Appreciate the contribution made by health personnel and health agencies in improving the health of people.
3. Assume responsibility for maintaining and improving the status of community health.

370

COMMUNITY HEALTH (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Community health begins at home.	1. Have the pupils define the terms *community, health,* and *community health.* 2. Discuss the reasons why community health must begin at home. Prepare a checklist to use in rating the home health environment. Include such factors as adequate heating, ventilation, and lighting. 3. Discuss the relationship between clean, safe homes and community health environment. 4. Have the pupils make drawings illustrating a healthy home environment. 5. Have the pupils bring in pictures of heaters, humidifiers, and air conditioning equipment. 6. Have the pupils arrange a bulletin board showing the importance of a healthful environment. 7. Discuss humidity and dry air and the relation of these factors to the health of the family. 8. Have the pupils explore the various ways of lighting the home and relate this to good health habits in the home.	*Books* Irwin, Leslie W., *et al.* *Choosing Your Goals.* Thackston, John A., and Newsom, William. *Aiding Our Health.* *Transparencies* *Community Health Efforts - Common or Unique.* 3M Company.
The school plays an important part in community health.	1. Have the pupils prepare a check list to use in evaluating the school health environment. 2. Invite the custodian, matron, safety officer, and other individuals to discuss how they help to protect the health and safety of the pupils. 3. Discuss what the pupil can do to cooperate with the adults who are helping to protect the health and safety of pupils. 4. Invite the principal to discuss what the school is doing about garbage and trash disposal. 5. Discuss what each person must do to make the school a healthy and safe area.	*Film* *Your Health at School.* Coronet Films. *Transparencies* *Influences on Community Health Activities.* 3M Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	6. Discuss the proper use of drinking fountains and lavatories. 7. Have the pupils establish some regulations for keeping the school and grounds safe and free from litter.	
The disposal of waste is becoming a critical problem in the community.	1. Discuss the various products that now create waste disposal problems (paper, garbage, plastics, nondisposable items, automobiles, human waste). 2. Invite a member of the sanitation department to discuss local waste disposal. 3. Take the pupils on a trip to the local dump or sewage disposal plant to see if the community has a disposal problem. 4. Discuss the problem of litter in the community. 5. Have the pupils plan a school-community "clean-up" project to involve as many individuals as possible. 6. Have the pupils make posters showing the need for proper disposal of waste. 7. Have the pupils discuss and trace the community sewage disposal system. 8. Invite a rubbish or garbage collector to discuss how he helps to protect community health. 9. Discuss the importance of using the sink and toilet properly for disposal of wastes. 10. Have the pupils decorate shopping bags or cardboard boxes to be used as litter containers.	*Film* *Cleanliness and Health.* Coronet Films. *Filmstrips* *Community Sanitation.* Young America Films. *Sewage Disposal.* McGraw-Hill Book Company. *Waste Disposal for the Community.* Encyclopaedia Britannica Educational Corp.
The control of disease is possible through community efforts.	1. Have the pupils explore the various ways diseases may be transmitted (food, insects, animals, air, contact).	*Books* Byrd, Oliver E., *et al. Health (6).*

371

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	2. Invite a member of the local health department to discuss what is being done to prevent the spread of communicable diseases. 3. Plan a trip to a local supermarket to observe sanitary ways of handling and disposing of foods. 4. Have the pupils investigate the discoveries made by famous people like Pasteur, Koch, Lister, and Reed in disease control. 5. Have the pupils investigate the diseases caused by the house-fly, mosquito, and other insects. 6. Have a few pupils do research on the progress made in controlling polio in the country. 7. Invite the school physician to discuss the community immunization program. 8. Have several pupils survey the members of the class to find out how many have been immunized against the various communicable diseases. 9. Have the pupils discuss the legal requirements for vaccination and immunization of school children in Massachusetts (General Laws-Section 15 of Chapter 76).	Irwin, Leslie W., *et al. Choosing Your Goals.* *Films* *The Housefly and Its Control.* Coronet Films. *The Mosquito and Its Control.* Coronet Films. *Your Health: Disease and Its Control.* Coronet Films. *Filmstrips* *Maintaining Community Health.* Young America Films. *Immunization.* Encyclopaedia Britannica Educational Corp. *Transparencies* *Effects of Disease on People in Communities.* 3M Company.
Community health services protect and help to improve the health of all citizens. 1. Health services a. Garbage and rubbish disposal b. Sewage disposal c. Sanitation d. Inspection of food handling e. Control of communicable diseases f. Vital statistics g. Maternal and child health	1. Have the pupils visit the local health office to meet the people working to improve community health. 2. Have the pupils list and discuss the various official agencies and their duties: (1) Health department. (2) Service department. (3) Water department. (4) Fire department. (5) Police department.	*Books* Byrd, Oliver E., *et al. Health (5).* Irwin, Leslie, *et al. Understanding Your Needs.* *Film* *Your Health in the Community.* Coronet Films. *Filmstrip*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
h. Others 2. Community agencies a. Hospitals b. Clinics c. Medical society d. Dental society e. Voluntary agencies f. Nursing homes g. Others	(6) General hospital. 3. Invite an administrator from the local hospital to explain the contribution the hospital makes to community health. 4 Discuss the importance of having a hospital with high health standards in a community. 5. Have the pupils visit the sanitation department to discuss the sewage disposal system. 6. Discuss the steps the sanitation department is taking in rat control. 7. Have the pupils investigate the problem of rodents in a neighborhood. 8. Discuss how individual families can help in controlling the rats and mice in their homes. 9. Have several pupils visit a local restaurant to observe the procedures followed in adhering to local health regulations. 10. Invite a member of the medical and/or dental societies to discuss how they contribute to community health. 11. Invite a member of the Visiting Nurses Association to discuss the services the organization makes available for family health. 12. Have the pupils plan a mural showing the various organizations that contribute to community health. 13. Have the pupils visit a local dairy farm or pasteurization plant. 14. Have the pupils visit a nearby nursing home and in some way contribute to the patients' physical, mental, or social health. 15. Have the pupils make a chart showing the professional, official, and voluntary agencies in the	*Our Health Department.* Encyclopaedia Britannica Educational Corp. *Transparencies* *Health Programs, Facilities, Services, Skills to Meet Community Health Needs.* 3M Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	local community. 16. Have the pupils make a list of the many individuals who contribute to community health (public health nurse, public health educator, sanitation engineer, etc.).	
Community health encompasses the health of the nation and the world.	1. Discuss the fact that a serious epidemic in one part of the country can create problems for other parts of the nation. 2. Have the pupils identify regions of the world suffering from serious health problems. 3. Have a few pupils seek information about the World Health Organization and report their findings to the class. 4. Have the pupils plan a bulletin board illustrating problems and activities concerned with the health of the nation and the world.	*Books* Irwin, Leslie W., *et al.* *Choosing Your Goals.* Irwin, Leslie W., *et al.* *Understanding Your Needs.* Thackston, John A., and Newsom, William T. *Developing Our Health.*

Area III **CONSUMER AND ENVIRONMENTAL HEALTH**

Field of Study ECOLOGY (Middle Grades)

Objectives

To help the pupil to:

1. Develop an awareness of the need for studying the environment.
2. Understand the interrelatedness of ecology to healthful living.
3. Become aware of the reasons for man's concern for his environment.
4. Assume responsibility for protecting his environment.

ECOLOGY (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Man affects and is affected by his environment. 1. Air pollution a. Sources (natural, man-made) b. Contributing conditions (1) Weather (sun, wind, temperature, humidity) (2) Population (greenhouse effect in cities plus increased pollution) c. Effects on health d. Effects on vegetation and materials e. Aesthetic effects f. Effects on recreation 2. Water pollution a. Sources (industry, outmoded sewage facilities, detergents, highway salt) b. Effects on health c. Effects on vegetation and ecosystems d. Aesthetic effects e. Effects on recreation 3. Noise pollution a. Sources b. Effects on health c. Effects on learning	1. Discuss the meaning of the word *environment.* 2. Have the pupils study the main elements of an ecosystem (air, soil, water). 3. Have the pupils draw a food chain showing the dependency of one species on another. 4. Have the pupils draw a picture of the inside of a spacecraft. Discuss how the craft provides for man's survival needs. 5. Have the pupils draw posters showing polluted areas in their neighborhoods. 6. Have one or two pupils photograph the sky on a clear day. Have them photograph the same scene when smog is in the air. 7. Have the pupils plan a bulletin board of pictures showing clean rivers, ponds, and lakes and, in contrast, pictures of polluted rivers, ponds, and lakes. 8. Have the pupils study noise and its effects on hearing. Discuss how noise can affect one's ability to learn.	*Books* Leopold, Luna B., *et al. Water.* Local Tuberculosis and Respiratory Disease Association. *Air Pollution Primer.* Massachusetts Petroleum Council. *Clean Streets, Clean Water, Clean Air.* Whaley, Rossell F., *et al. Basic Health Science (D, E).* *Films* *Down, Decibel, Down.* King Screen Productions. *Water for the Community.* Coronet Films. *Flannelboard* *Air Pollution Mobile Workshop.* Local Tuberculosis and Respiratory Disease Association. *Pamphlet* "Needed: Clean Air." Channing L. Bete Co., Inc.
Man can help to maintain a balance in his environment. 1. Research 2. Education 3. Conservation a. Soil b. Water c. Air d. Plants e. Animals	1. Have the pupils make a list of harmless methods for controlling pests. 2. Discuss the price man is paying for disturbing the environmental balance. 3. Have the pupils write poems stressing the need for ecology. 4. Invite a state conservation officer or wildlife expert to discuss how wildlife is managed, what actions have been taken by the state, and what pupils can do to preserve wildlife.	*Books* Billington, Elizabeth T. *Understanding Ecology.* Byrd, Oliver E., *et al. Health (5).* deGarrett, Bell, ed. *The Environmental Handbook.* Mattison, C.W., *et al. Man and His Resources.* Richmond, Julius B., *et al. Health and Growth (6).* Storer, J. *Man in the Web of Life.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	5. Have the pupils do research on how man is trying to prevent further pollution. 6. Have a pupil report on a visit to a recycling plant. 7. Have the pupils list ways to solve problems relating to human ecology. 8. Have the pupils form a club to inform peers and adults of existing and future environmental problems and what can be done about them.	Whaley, Russell F., *et al.* *Basic Health Science (F).* *Films* *Boomsville.* Learning Corporation of America. *The Model City.* Communico, Inc. *Filmstrip* *Conservation in the City.* Massachusetts Petroleum Council.
As the population increases, each person becomes dependent upon others for a healthful environment.	1. Discuss the problems man faces as the population increases. 2. Have the pupils identify the individuals and organizations working to improve the environment in the local community. 3. Discuss local laws pertaining to pollution and conservation after visiting the local Board of Health. 4. Have the pupils write a play telling what they can do to preserve the local water supply and to keep the air clean.	

Area III CONSUMER AND ENVIRONMENTAL HEALTH

Field of Study HEALTH CAREERS (Middle Grades)

Objectives

To help the pupil to:

1. Understand that there are many career opportunities in the health field at many levels of ability and training.
2. Become aware that new methods and processes create an ever changing series of health career opportunities.
3. Realize that young people may contribute directly to the health career field.

HEALTH CAREERS (Middle Grades)

Concepts and Primary Concerns

The community provides many health career possibilities.

1. Professional careers
   - a. Physicans
     - (1) Allergist
     - (2) Anesthesiologist
     - (3) Cardiologist
     - (4) Dentist
     - (5) Dermatologist
     - (6) General practitioner
     - (7) Gynecologist
     - (8) Internist
     - (9) Neurologist
     - (10) Ophthalmologist
     - (11) Orthodontist
     - (12) Para-medic
     - (13) Psychiatrist
   - b. Specialists
     - (1) Dietician
     - (2) Medical technologist
     - (3) Pharmacist
     - (4) Physical therapist
     - (5) Registered nurse
     - (6) Speech pathologist
     - (7) X-ray technician
   - c. Specialists (non-medical)
     - (1) Clinical psychologist
     - (2) Hospital administrator
     - (3) Occupational therapist
     - (4) Optician
     - (5) Optometrist
     - (6) Scientist
   - d. Supportive careers
     - (1) Laboratory assistant
     - (2) Medical records librarian
     - (3) Medical secretary
     - (4) Nurse's aid

Sample Learning Experiences

1. Have the pupils plan a health career day, and invite representatives or students from various health fields to discuss their occupations.
2. Have pupils interview people in health careers and report to the class.
3. Have the pupils compare the status of health careers during the early 1900's with that of today.
4. Show the pupils films about health careers.
5. Have the pupils tell of their experiences with people in the health professions.
6. Have the pupils role play what takes place in a dentist's office.
7. Have the pupils arrange a bulletin board of current magazine and newspaper articles on activities in health careers.
8. Invite guidance personnel to discuss careers in health occupations.
9. Have the pupils draw pictures of people who work in hospitals. Discuss the pictures and the different professions and occupations illustrated.

Resources

Books

Byrd, Oliver E., *et al. Health.*

Norris, Willa. *Occupational Information in the Elementary Schools.*

Paffenbarger, George C., ed. *Frontiers of Dental Science.*

Richmond, Julius B., *et al. Health and Growth (6).*

Films

Even for One. Sterling Movies.

Health Careers. Health Career Film Service.

Journey into Medicine. United World Films.

Training in Medicine and Public Health. National Institute of Health.

Your Friend the Doctor. Coronet Films.

Kit

Widening Occupational Roles Kit. Science Research Associates, Inc.

Pamphlets

"Health Careers Information Guide." Woman's Auxiliary to the Massachusetts Medical Society.

"Minimum Educational Requirements for Allied Health Occupations." Woman's Auxiliary to the Massachusetts Medical Society.

"Minimum Educational Requirements for Health Occupations." Woman's Auxiliary to the Massachusetts Medical Society.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
(5) Orderly (6) Practical nurse e. Related careers (1) Social work (medical, psychiatric) (2) Education (3) Government (public health, food and drug administration officer)		*Transparencies* *Health Service Careers.* 3M Company. *Professional Health Specialists.* 3M Company.
Young people may make direct contributions to health as they investigate health careers. 1. Hospital workers a. Assist in feeding b. Visiting c. Entertaining children 2. Nursing home helpers a. Recreation aids b. Entertainers c. Diet aids 3. Nurse's aid in school	1. Invite teen-agers who have worked in health career related fields to talk with the pupils.	

Area IV SAFE LIVING

Field of Study FIRST AID* AND EMERGENCY PROCEDURES (Middle Grades)

Objectives

To help the pupil to:

1. Understand the why and how of simple first-aid techniques.
2. Develop greater self-reliance and self-confidence when faced with an emergency.
3. Appreciate the responsibility each person must assume at the time of a disaster.
4. Acquire simple skills in treating minor injuries.

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*It is recommended that the *Basic First Aid Program* be made available to all students at the middle grade or junior high level. The program may be obtained through the Local Red Cross Chapter.

FIRST AID AND EMERGENCY PROCEDURES (Middle Grades)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Certain safety precautions must be observed in an emergency.	1. Have the pupils define the word *emergency.* 2. Discuss the various emergencies children may have encountered. 3. Have the pupils identify the qualities essential in coping with unexpected situations (good reaction time, alertness to surroundings). 4. Discuss the importance of all members of the family knowing whom to telephone to get sound advice and expert help in an emergency. 5. Invite the school nurse to discuss the items needed in a first-aid cabinet at school.	*Books* Byrd, Oliver E., *et al. Health (4-6).* Richmond, Julius B., *et al. Health and Growth (6).* *Guide.* American National Red Cross. *Basic First-Aid Program.*
Man is still unable to control many natural emergencies. 1. Electrical storms 2. Tornadoes 3. Hurricanes 4. Blizzards 5. Floods 6. Earthquakes	1. Discuss some of the severe electrical storms pupils have experienced. 2. Have the pupils explore the dangers of electrical storms. 3. Identify precautions individuals should take during an electrical storm. 4. Role play what one should do if he is on an outing, swimming or boating and an electrical storm approaches. 5. Have the pupils find out how tornadoes are identified and if such storms occur in Massachusetts. 6. Discuss the procedures that should be followed if the National Weather Service Forecast Office forecasts a tornado in the area. Have the pupils find out if the school has a policy to follow if a tornado is spotted in the vicinity. 7. Discuss the work of the United States Weather Service Forecast Office during the hurricane season.	*Book* Byrd, Oliver E., *et al. Health (6).* *Film* *Fire Safety Is Your Problem.* McGraw-Hill Book Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	8. Have the pupils list the things to do to protect the family in the event of a hurricane. 9. Have the pupils draw posters depicting steps to take after a hurricane is over (avoiding fallen power lines and contaminated food and water, etc.). 10. Discuss what a family should do to prepare for a severe snowstorm. 11. Have the pupils role play what should be done if a family is stranded in a car in a severe snow storm. 12. Discuss the health and safety problems which may occur when a family experiences a flood in the community. 13. Have the pupils identify areas in the United States where earthquakes occur most frequently. 14. Discuss precautions that should be taken for the safety of all if an earthquake occurs.	
Some emergencies are the result of man's carelessness. 1. Vehicle accidents 2. Play accidents 3. School accidents 4. Fires 5. Home accidents 6. Water accidents	1. Discuss what can be done to avoid bicycle and vehicle accidents. 2. Have the pupils identify recreational accidents that could have been avoided. 3. Have the pupils develop a simple check list on ways to prevent accidents, and survey the school building and school grounds using the list. 4. Invite an electrician from the local power company to discuss emergencies created by electrical hazards. 5. Arrange to have the class participate in a "private" fire drill. 6. Have the pupils tour the school to locate fire alarms and extinguishers.	*Books* Byrd, Oliver E., *et al. Health (4-6).* Irwin, Leslie W., *et al. Choosing Your Goals.* Richmond, Julius B., *et al. Health and Growth (6).* Thackston, John A., and Newsom, William T. *Developing Our Health.* *Films* *Be Water Wise.* McGraw-Hill Book Company. *Fire Safety Is Your Problem.* McGraw-Hill Book Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	7. Invite a fire fighter to discuss fire extinguishers and first-aid procedures related to burns.	*In Case of Fire.* Encyclopaedia Britannica Educational Corp.
	8. Have the pupils study the different kinds of fire extinguishers and the type of fire each extinguishes most effectively.	*I'm No Fool in the Water.* Encyclopaedia Brittannica Educational Corp. *Electricity: Principles of Safety.* Coronet Films.
	9. Discuss with a fire fighter present how to put out small fires in the home or yard.	*A Chance to Save a Life.* National Council of Boy Scouts of America.
	10. Discuss the importance of rope ladders in second story homes as means of escape in the event of a fire.	*Safe Living at School.* Association Films, Inc. *Safe Living at Home.* Coronet Films. *Read the Label and Live.* Henk Newenhouse.
	11. Have the pupils draw pictures of their homes and the means of escape in the event of a fire.	*Help Wanted.* Johnson and Johnson.
	12. Have the pupils list for home use the telephone numbers of the family doctor, ambulance, nearest neighbor, and the poison center control.	*Poster* *Be a Safety Sleuth.* American National Red Cross.
	13. Have the pupils demonstrate what to do when someone is in need of help in the water (pool, beach, boating, sailing, skating).	
	14. Have the pupils construct a mouth-to-mouth resuscitation mannequin. Use a gallon plastic bleach bottle to represent the head, and attach a plastic bag to the neck of the container to represent the lungs.	
	15. Demonstrate the Holger-Neilson and mouth-to-mouth methods of artificial respiration. Provide time for the children to practice these methods. (Use the resuscitation mannequin when practicing mouth-to-mouth resuscitation.)	
	16. Have the pupils role play an emergency situation that might occur on a camping trip and the first aid necessary to help a child needing emergency care.	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Minor injuries require simple first-aid treatment as a precaution against infection or further disability. 1. Wounds (minor cuts, deep cuts, punctures) 2. Bleeding 3. Minor burns 4. Chemical burns 5. Bruises 6. Nose bleed 7. Splinters 8. Blisters 9. Poison consumption 10. Infections 11. Sprains	1. Discuss the term *first aid* and the importance of knowing the basics of first aid for everyday emergencies. 2. Discuss the danger of over exposure to the sun. List first-aid procedures for sunburn. 3. Have the pupils read about poisonous plants and the procedures to follow upon being exposed to a poisonous plant. 4. Demonstrate what should be done in the event of a mild nose bleed. 5. Demonstrate the direct method for stopping bleeding. Stress the importance of seeking adult help if bleeding is excessive. 6. Demonstrate the proper procedure for putting a Band-Aid and/or sterile compress on a small wound. 7. Discuss the importance of identifying signs of infection (swelling, redness, pus formation, pain) and the need for seeking the services of a doctor. 8. Have the pupils role play what to do when a friend who is visiting bruises his foot and it begins to swell. 9. Demonstrate how to take care of a splinter that is not imbedded too deeply in the skin. 10. Discuss what to do if a young child accidentally swallows a poisonous substance. 11. Invite a member of the Red Cross or a scout leader to demonstrate the best first-aid technique to use if a bone is broken.	*Books* Bendrick, Jeanne. *The Emergency Book.* Boston Children's Hospital Medical Center. *Accident Handbook.* Byrd, Oliver E., *et al. Health (4-6).* Irwin, Leslie W., *et al. Dimensions in Health Series: Choosing Your Goals. Understanding Your Needs. Finding Your Way.* *Filmstrip* *Little Children and Big Poisons.* American Association of Poison Control Centers.
* *Disaster safety is an important concern in the event of an emergency created by man.*	1. Have the pupils prepare a display of materials a family should have on hand in the event of a civil disaster.	*Book* Cornacchia, Harold, J., *et al. Health in Elementary Schools.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	2. Invite the principal to discuss the route and/or alternate routes to the safest point in the building during a civil disaster. 3. Demonstrate and have the children practice ways to protect the face when under simulated attack. 4. Have the pupils prepare a map and locate emergency shelter areas in the community. 5. Invite a member of the local civil defense unit to discuss how the civil defense office helps members of the community during disasters.	*Pamphlet* "If Disaster Strikes." U.S. Government Printing Office.
Learning how to assist in caring for others in the home may prevent emergencies.	1. Discuss how the pupils can assist in the home when a parent or sibling is ill. 2. Discuss the importance of serving warm food to a helpless patient and of keeping the patient clean and comfortable. Invite the school nurse to discuss the important ways children can help the family when there is sickness in the home.	*Book* Kilander, H. Frederick. *School Health Education.*

JUNIOR HIGH

Area I PHYSICAL HEALTH

Field of Study BODY STRUCTURE AND FUNCTION · (Junior High)

Objectives

To help the student to:

1. Understand the basic anatomical structure of the body and its related functions.
2. Appreciate the complexity of the human body and the interdependency of the body systems.
3. Recognize the need to conserve and protect his body to achieve optimum health.

BODY STRUCTURE AND FUNCTION (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The human body is a complex organism composed of multiple and interdependent systems. 1. Organized, systematic approach to understanding the body essential 2. Early adolescence (period of rapid physical change) a. Height and weight b. Strength and coordination c. Body shape d. Puberty (1) Primary characteristics (2) Secondary characteristics	1. Discuss the ways in which living things grow and develop. 2. Discuss the stages of growth, the evidence of growth, and factors affecting growth. 3. Discuss the characteristics of the different stages of growth. 4. Discuss the ways an individual can learn to accept and adjust to his growth pattern. 5. Have the students identify the various body systems.	*Books* Asimov, Isaac. *The Human Body: Its Structure and Operation.* Bauer, W.W. *Today's Health Guide.* Byrd, Oliver E., *et al. Health (7).* Gardner, Weston, D., and Osburn, William A. *Structure of the Human Body.* Nourse, Alan E. *The Body.* *Film* *The Human Machine.* Massachusetts Department of Education. *Transparencies* *Human Structures: Their Function and Technology.* 3M Company.
Individuality begins in the body's cells. 1. Cells specialize 2. Specialized cells form tissues 3. Tissues join to form organs 4. Cells grow and increase in size and number	1. Have the students review the types of cells and tissues: (1) Bone. (2) Muscle. (3) Blood. (4) Nerve. (5) Fat. (6) Skin. 2. Show the transparencies *The Cell: Structure and Function* to the students. 3. Have the students examine slides of various cell structures under the microscope. 4. Discuss human development.	*Books* Local Cancer Society. *Biology Experiments for High School Students.* Pfeiffer, John. *The Cell.* Miller, Benjamin F., *et al.* *Investigating Your Health.* Tanner, James M., and Taylor, Gordon R. *Growth.* *Film* *From One Cell.* Local Cancer Society. *Pamphlets* "Facts Aren't Enough." American Medical Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		"How Cells Divide." Scientific American. "Life's Key - DNA." Coward-McCann. "The Living Cell." Scientific American. *Transparencies* *Cell Structure, Function and Heredity.* GAF Corporation. *The Cell: Structure and Function.* Local Cancer Society.
The respiratory system is essential to every body cell. 1. Nostrils 2. Pharynx 3. Trachea 4. Bronchi 5. Lungs	1. Show a transparency of the main parts of the respiratory system and have the students trace the path air takes as it is inhaled and exhaled. 2. Have the students review the composition of air. 3. Discuss the reliance of the body on respiration for life. 4. Discuss the interrelationship of the circulatory and respiratory systems.	*Books* Byrd, Oliver E., *et al. Health (8).* Byrd, Oliver E., *et al. Health - Today and Tomorrow.* Gmur, Ben C. *Making Health Decisions.* *Films* *The Elusive Enemy.* Local Tuberculosis and Respiratory Disease Association. *Healthy Lungs.* Coronet Films. *The Human Body: Respiratory System.* Coronet Films. *Mechanisms of Breathing.* Encyclopaedia Britannica Educational Corp. *Filmstrip* *The Respiratory System.* McGraw-Hill Book Company. *Pamphlets* "Breathing, What You Need to Know." Local Tu-

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		berculosis and Respiratory Disease Association.
The skeletal system is functional. 1. Supports and protects 2. Determines size and shape 3. Makes movement possible 4. Produces red blood cells	1. Have the students illustrate and discuss types of bones and their functions and types of joints. 2. Have the students make a model skeleton out of paper or cardboard. 3. Have the students examine animal bones obtained from a local market. 4. Discuss changes that take place in the skeleton from infancy to old age (closing of the fontanelles, growth of the skeleton, calcification, shape of mandible, osteoporosis-old age, loss of calcium. 5. Have the students examine compact and spongy bones. Locate the marrow in the long bones. 6. Have the students perform the following experiment: (1) Soak chicken bones in weak acid. (Mineral matter will dissolve within a week allowing the bones to become extremely flexible.) (2) Bake bones at high oven temperature. (Animal matter will be burnt off and remaining mineral matter will be brittle.)	*Books* Irwin, Leslie W., *et al.* *Foundations for Fitness.* Irwin, Leslie W., *et al.* *Understanding Your Needs.* Life, John R. *Concepts in Health IV.* Miller, Benjamin F., *et al.* *Investigating Your Health.* *Films* *Human Body: Skeleton.* Massachusetts Department of Education. *The Skeleton.* Encyclopaedia Britannica Educational Corp. *Pamphlet* "The Wonderful Human Machine." American Medical Association.
The nervous system coordinates body responses. *The nervous system is made up of three sub-systems.* 1. Central nervous system 2. Autonomic nervous system 3. Peripheral system	1. Discuss the nervous system using illustrations. 2. Discuss the three sub-systems using charts and diagrams. Emphasize their interrelatedness. 3. Discuss the areas of the brain and the specialized function of each. 4. Have the students trace the path of a sensory nerve. 5. Compare sensory, motor, and cranial nerves.	*Books* Byrd, Oliver E., *et al.* *Health (8).* Byrd, Oliver E., *et al.* *Health-Today and Tomorrow.* Life, John R. *Concepts in Health IV.* Wilson, John Rowan. *The Mind.* *Films*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	6. Study the autonomic system and discuss its importance to man's survival.	*Human Body: The Nervous System.* Massachusetts Department of Education. *The Nervous System.* Encyclopaedia Britannica Educational Corp.
The muscular system provides the force for moving the body.	1. Discuss some of the functions of the muscles. 2. Have the students do research and report on the following: (1) The relationship between muscles and bones. (2) Some of the special muscles of the body. (3) The relationship between the nervous and muscular systems. (4) The voluntary and involuntary muscles. (5) The fact that muscles work in pairs. 3. Discuss how muscles can be strengthened (exercise and a balanced diet). 4. Discuss the importance of warm-up activities before engaging in strenuous physical activity.	*Books* Byrd, Oliver E., *et al.* *Health - Today and Tomorrow.* Irwin, Leslie W., *et al.* *Foundations for Fitness.* Irwin, Leslie W., *et al.* *Understanding Your Needs.* Keen, Martin L. *The Wonders of the Human Body.* Miller, Benjamin F., *et al.* *Investigating Your Health.* *Film* *The Human Body: Muscular System.* Coronet Films. *Filmstrips* *The Bones and Muscles.* McGraw-Hill Book Company. *Your Bones and Muscles.* Eye Gate House, Inc.
The circulatory system carries vital supplies to all cells of the body. 1. Blood vessels a. Arteries b. Veins c. Capillaries 2. Heart 3. Blood	1. Using a transparency of the circulatory system, have the students show the movement of blood through the heart to the lungs and back to the heart. 2. Have an interested student report on Harvey's discovery of the circulation of the blood. 3. Have the students practice taking each other's pulse and record pulse rates before and after exercise.	*Books* Byrd, Oliver E., *et al.* *Health (8).* Byrd, Oliver E., *et al.* *Health - Today and Tomorrow.* Irwin, Leslie W., *et al.* *Foundations for Fitness.* Miller, Benjamin F., *et al.* *Investigating Your Health.* Vroman, Leo. *Blood.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
a. Plasma b. Red cells c. White cells d. Platelets	4. Discuss the role played by each blood component: (1) Plasma (fluid part). (2) Red cells (pick up oxygen). (3) White cells (disease fighters). (4) Platelets (clotting elements). 5. Have an interested student report on human heart transplants. 6. Have an interested student report on blood types.	*Film* *Hemo the Magnificent.* Bell Telephone Film Service. *Pamphlets* "Healthy Eating for Teenagers." Local Heart Association. "Your Heart Has Nine Live." Local Heart Association.
The digestive system provides the body with its essential nutritional needs.	1. Show the students charts and/or transparencies of the various organs of the digestive system and discuss the digestive process. 2. Have the students make large diagrams of the various organs of the digestive system and identify the parts. 3. Have the students do research and report on the digestive process of specific organs.	*Books* Irwin, Leslie W., *et al.* *Foundations for Fitness.* Kahn, Fritz. *The Human Body.* McCulloch, Gordon. *Man and His Body.* *Films* *Digestion of Foods.* Encyclopaedia Britannica Educational Corp. *Human Body: The Digestive System.* Massachusetts Department of Education. *Filmstrips* *Digestion of Foods.* Encyclopaedia Britannica Educational Corp. *The Human Digestive System.* Society for Visual Education. *The Nutrients in Food.* McGraw-Hill Book Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
For survival, the body must eliminate its waste products.	1. Have the students prepare a report on the main organs of the excretory system. 2. Discuss the organs involved in the excretory system and how the body excretes solid waste. 3. Discuss the work of the kidneys and their importance to body functioning. 4. Have the students trace the path of body fluids and identify the function of the kidneys, ureters, bladder, and urethra. 5. Discuss the use of urinalysis as a diagnostic tool.	*Books* Fait, Hillis F. *Health and Fitness for Modern Living.* Irwin, Leslie W., *et al.* *Foundations for Fitness.* Miller, Benjamin F. *Investigating Your Health.* *Films* *The Human Body: Excretory System.* Coronet Films. *The Work of the Kidneys.* Encyclopaedia Britannica Educational Corp. *Transparencies* *Excretory System.* Western Publishing Company.
The endocrine system has an important effect on all parts of the body.	1. Have the students identify the chemical substances called hormones. Discuss their importance in the functioning of the body. 2. Have each student do research on the glands known to produce hormones. 3. Have the students bring in advertisements of hormone products. Discuss the claims companies make for their products. 4 Have a few students study and report on hyper-hypo activity of the endocrine glands. 5. Discuss the function of the endocrine glands.	*Books* Byrd, Oliver E., *et al.* *Health - Today and Tomorrow.* Miller, Benjamin F. *Investigating Your Health.* *Film* *Endocrine Glands--How They Affect You.* McGraw-Hill Book Company. *Pamphlet* "What You Should Know About the Endocrine Glands." American Diabetes Association, Inc. *Transparencies* *Growth and the Endocrine Glands.* GAF Corporation.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Both the male and the female have a unique reproductive structure and function.	1. Show the students transparencies of the male and female reproductive systems and discuss the structure of each. 2. Show and discuss the filmstrip *Human Reproduction.*	*Book* Lerrigo, Marion, and Cassidy, Michael. *A Doctor Talks to 9 - 12 Year Olds.* *Filmstrip* *Human Reproduction.* Eye Gate House, Inc. *Pamphlet* "For Youth to Know." Laidlaw Brothers, Publishers. *Transparencies* *Female Reproductive System.* Clearvue. *Male Reproductive System.* Clearvue. *Reproductive System.* Western Publishing Company.
Heredity influences the individual in a variety of ways. 1. Physical characteristics a. Potential height b. Body build c. Coloring of eyes, skin, hair d. Blood type 2. Determinants of characteristics a. Chromosomes b. Genes (1) Determinants of traits (2) Dominant and recessive genes 3. Differences in growth patterns	1. Have each student make a list of his inherited characteristics and trace them to family members. 2. Discuss the differences in growth rates between boys and girls at this age level. 3. Discuss hormone imbalances which could affect normal growth and development. 4. Discuss individual variations of maturation.	*Books* Irwin, Leslie W., *et al. Dimensions in Health Series; Choosing Your Goals. Understanding Your Needs.* Lerrigo, Marion, and Cassidy, Michael. *A Doctor Talks to 9 - 12 Year Olds.* Randal, Judith. *All About Heredity.* *Transparencies* *Body Changes at Puberty.* 3M Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Early adolescence is a period of rapid growth and physical change. 1. Height and weight 2. Strength and coordination 3. Body shape 4. Puberty a. Primary characteristics b Secondary characteristics.	1. Discuss the characteristics of the different stages of growth. 2. Discuss the ways each individual can learn to accept and adjust to his own growth patterns. 3. Have the students take body measurements (arm length, head circumference, foot length) and calculate the average measurements for the class. 4. Discuss the variations in measurements and the significance of the variations at this age level. 5. Discuss the difference in growth between the sexes.	*Books* Allport, Gordon W. *Pattern and Growth in Personality.* Bauer, W.W. *Moving into Manhood.* Hurlock, Elizabeth. *Adolescent Development.* Menninger, William. *How to Be a Successfull Teenager.* *Chart* *Menstrual Physiology Chart.* Kimberly Clark Corp. *Film* *The Story of Menstruation.* Kimberly Clark Corp. *Filmstrip* *The Story of Menstruation.* Kimberly Clark Corp. *Transparencies* *The Baby: Its Conception, Growth and Birth.* GAF Corporation. *Emotions Affect Body Functions.* 3M Company. *How Structure Affects Growth and Development.* 3M Company. *Reproductive System.* Western Publishing Company.
Girls and boys are biologically capable of mating and reproducing before they are capable of handling the responsibility of parenthood. 1. Physical development a. Heredity b. Sexual maturity	1. Use transparencies as the basis for discussion of the male and female reproductive systems. 2. Have the students compare the two reproductive systems and discuss their roles in the reproductive process.	*Books* Kilander, H. Frederick. *Health for Modern Living.* Turner, Clair E. *Personal and Community Health.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
c. Puberty 2. Emotional maturity 3. Social growth	3. Discuss the following topic: What It Means to Grow Up. 4. Discuss the problems of financing a home and family in today's society.	*Films* *Boy to Man.* Massachusetts Department of Education. *Girl to Woman.* Massachusetts Department of Education. *Human Reproduction.* Massachusetts Department of Education. *Filmstrips* *Especially for Boys.* Henk Newenhouse. *Especially for Girls.* Henk Newenhouse. *Pamphlets* "For Youth to Know." Laidlaw Brothers, Publishers. "The Miracle of You: What It Means to Be a Girl." Kimberly Clark Corp. "Moving into Manhood." Doubleday and Company.

Area I PHYSICAL HEALTH

Field of Study CLEANLINESS AND APPEARANCE (Junior High)

Objectives

To help the student to:

1. Apply his knowledge of the structure and function of the skin to its care and protection.
2. Appreciate the importance of grooming and personal appearance in developing self-confidence and positive mental health.
3. Develop respect for the human body and a desire to provide it the best care possible.

CLEANLINESS AND APPEARANCE (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
First impressions are very important. 1. Body cleanliness 2. Appropriateness of clothing 3. Appearance of the hair, skin, and nails 4. Use of cosmetics 5. Posture	1. Discuss the importance of first impressions when applying for a job. Have the students make a list of the characteristics of appearance and behavior they consider when they meet a person for the first time. 2. Invite a member of the guidance department to discuss the importance of appearance and grooming when seeking work. 3. Discuss appropriate clothing for various activities. 4. Have the students identify the parts of the nail and discuss its structure. 5. Discuss and demonstrate the use of a nail file, emery board, orange stick, and nail brush.	*Books* Miller, Benjamin F., *et al. Investigating Your Health.* Yoho, Robert O. *Health for Today.* *Chart* *Physiology Chart Series -- Skin and Excretory Organs.* Denoyer-Geppert Co.
The skin contributes to the health and optimum functioning of the individual. 1. Factors contributing to skin health a. Cleanliness b. Exercise c. Rest d. Balanced diet 2. Skin problems a. Pimples b. Blackheads c. Acne	1. Using wall charts and transparencies, have the students review the structure and functions of the skin: (1) Protection (2) Elimination (3) Retention of body fluids (4) Regulation of body temperature (5) Appearance (6) Sensory organ 2. Have the students examine their hands under a magnifying glass and discuss what they see. 3. Discuss the importance of washing frequently with soap and warm water (to remove excessive oil, perspiration, and bacteria). 4. To demonstrate the emulsifying action of soap, have two students rub their hands with oil or grease. One student can wash his hands using soap while holding them under running water. The other can wet his hands, use soap, and rub	*Books* Archer, Elsie. *Let's Face It.* Bauer, W. W. *Today's Health Guide.* Gmur, Ben C., *et al. Making Health Decisions.* Robbins, Sidney J., *et al. 1001 Questions and Answers to Your Skin Problems.* Woodburn, John H. *Know Your Skin.* *Chart* *Physiology Chart Series -- Skin and Excretory Organs.* Denoyer-Geppert Co. *Pamphlets* "Something Can Be Done About Acne." American Medical Association. "The Wonderful Human Machine." American Medical Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	the hands together producing enough lather to enable the soap to emulsify the oil or grease. Both students can then rinse and dry their hands and press them against brown wrapping paper. Discuss the translucent spots left by the oily hands. 5. Discuss some of the underlying causes of skin problems: (1) Hormones. (2) Rapid growth. (3) Food high in starches and sugars. (4) Fried foods. 6. Invite the school nurse to discuss acne and how to improve and correct the condition. 7. Invite a dermatologist to discuss skin disorders. 8. Have the students study the use of the Finnish sauna bath as a method of cleansing the skin.	*Transparencies* *Physical Care and Self-Respect.* GAF Corporation.
Body cleanliness and clean clothing contribute to an attractive appearance.	1. Have two students list reasons why cleanliness is an important factor in keeping the skin healthy and free from infections. 2. Discuss the variety of ways clothing may be kept neat and clean and the teen-ager's responsibility for caring for his own wardrobe. 3. Have the students in the Home Economics Department report on the current changes in styles and the effect of clothing on one's appearance.	*Books* Byrd, Oliver E., *et al.* *Health - Today and Tomorrow.* Hart, Constance. *The New Handbook of Beauty.* *Films* *Body Care and Grooming.* McGraw-Hill Book Company. *Clothes and You.* Coronet Films. *Good Grooming for Girls.* Coronet Films. *Teen-Age Clothing.* McGraw-Hill Book Company. *Your Figure.* McGraw-Hill Book Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		Filmstrip *Time to Attire.* Young America Films. *Pamphlets* "A Boy and His Physique." New England Dairy and Food Council. "A Girl and Her Figure." New England Dairy and Food Council.
Cosmetics used properly enhance personal appearance and grooming.	1. Discuss the importance of cosmetics as aids to improving a person's appearance. 2. Discuss deodorants and preparations which retard perspiration. 3. Discuss the following statement: Deodorants are not a substitute for soap and water. 4. Discuss the careful use of creams and oils on oily skin or oily hair. 5. Invite a nurse to discuss hair removers, deodorants, suntan lotions. 6. Have the students display cosmetics used by the members of the class. Discuss the use of these items and consider the following: (1) Purpose. (2) Cost. (3) Appropriateness for use by junior high school students. 7. Have the students bring in advertisements that relate to the items mentioned above. Discuss and evaluate the claims made for the advertised products. 8. Have the students obtain information on the Federal Food, Drug and Cosmetic Act of 1938 and on current legislation.	*Books* Jones, Candy. *Let's Make Faces.* Sauer, Gordon C. *Teen Skin.* Seventeen Magazine. *Seventeen Magazine's Book of Fashion and Beauty.* Stabile, Toni. *Cosmetics: Trick or Treat.* Thackston, John A., and Newsom, William T. *Protecting Our Health.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
A person's posture can reflect his physical and emotional health.	1. Discuss the fact that a person's posture conveys his self-confidence, mental outlook, and general health. 2. Have the students role play situations depicting moods and feelings through posture. 3. Provide each student with a drawing of the human skeleton and have him label the main parts. 4. Have the students draw skeleton figures depicting good posture for various activities (skiing, walking, running, etc.). 5. Discuss the fact that correct posture and proper use of muscles can prevent undue strain and injury. 6. Have the students demonstrate proper sitting and walking posture and develop a self checklist for correct posture. 7. Provide a full length mirror and have each student analyze his own posture side view and front view.	*Books* Byrd, Oliver E., *et al. Health (7).* Miller, Benjamin F., *et al. Investigating Your Health.* Thackston, John A., and Newsom, William T. *Protecting Our Health.* *Charts* *Posture Teaching Charts for Boys.* New England Dairy and Food Council. *Posture Teaching Charts for Girls.* New England Dairy and Food Council. *Films* *Improving Your Posture.* Coronet Films. *Posture and Exercise.* Massachusetts Department of Education. *Posture Habits.* Coronet Films. *Pamphlets* "Postures on Parade." New England Dairy and Food Council. "They Ask Why." New England Dairy and Food Council.
Proper foot care contributes to a more efficient body.	1. Discuss the importance of the feet to an effectively functioning body. Consider the following: (1) They permit the body to move. (2) They provide the base for good posture. (3) They react to many stresses and strains. 2. Using prints that they have made of their feet, have the students analyze the shape of	*Books* Byrd, Oliver E., *et al. Health - Today and Tomorrow.* Diehl, Harold S., *et al. Health and Safety for You. For You.* Schneider, Robert E. *Health and Growth.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	the arches, weight bearing points, and deviations which affect posture. Discuss the value of foot exercises for individuals with postural defects. 3. Have a student trace the shoe of a student who is standing. Then have the student remove his shoes and stand in the outline while the first student traces the bare feet in standing position. Relate the results to buying properly fitted shoes. 4. Discuss the importance of wearing shoes when walking on hard or rough surfaces. 5. Discuss the fact that arches permit one to move and stand. 6. Discuss the effect of excessive weight on the structure and function of the feet.	*Film* *Obesity.* Encyclopaedia Britannica Educational Corp. *Filmstrip* *Care of the Feet.* Encyclopaedia Britannica Educational Corp.
Cleanliness and appearance may reflect the group with which one associates.	1. Discuss the image presented by long-haired boys and girls in dungarees. 2. Discuss the fact that clothes can affect the personality and the actions of an individual. 3. Discuss the local school dress code. 4. Discuss parental pressures concerning appearance. 5. Have the students bring in pictures for a bulletin board showing current styles. Discuss the implications of fads. 6. Have the students role play two different personalities indicated by the manner in which the individuals dress.	

Area I PHYSICAL HEALTH

Field of Study DENTAL HEALTH (Junior High)

Objectives

To help the student to:

1. Understand that it is possible to prevent dental decay and improve gingival health in most instances.
2. Assume responsibility for his own dental health.
3. Recognize and appreciate the dental needs of the community.

DENTAL HEALTH (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Except for the wisdom teeth, permanent dentition is completed during the junior high school years. 1. Primary teeth 2. Permanent teeth 3. Structure of the tooth a. Dental arches b. Enamel, dentin, cementum, pulp, alveolar bone c. Periodontal membrane and fibers d. Gingivae (gums) e. Cuspid roots	1. Have the students review the structure of the tooth using a model. Then have them draw and label the parts of a tooth. 2. Display X rays of primary and permanent teeth imbedded in the gums. Stress the fact that both sets begin to develop before birth. 3. Discuss the uniqueness of the structure of the mouth and teeth. 4. Invite the dental hygienist to discuss the structure of the mouth and the significance of the third molars (wisdom teeth) at this age level. 5. Discuss the following statement: Gums are very sensitive indicators of the general physical condition. 6. Discuss the uniqueness of two dentitions.	*Books* Byrd, Oliver E., *et al. Health - Today and Tomorrow.* Diehl, Harold S., *et al. Health and Safety for You.* Lauterstein, A.M., and Barber, T. R. *Teeth - Their Forms and Functions.* Yoho, Robert O. *Health for Today.* *Film* *Teeth: Their Structure and Care.* Coronet Films. *Pamphlets* "Dental Health Facts for Teachers." American Dental Association. "Education: A Key to Good Dental Health." United States Department of Health, Education and Welfare. "Healthy Teeth." United States Department of Health, Education and Welfare. "Teaching Dental Health." American Dental Association.
The most common disease requiring professional treatment is dental caries. 1. Identification of tooth decay 2. Prevalence of tooth decay at the teen-age level 3. Factors contributing to dental caries a. Amount of acid produced b. Length of time acid remains in contact with teeth c. Susceptibility of teeth to decay d. Presence of fermentable carbohydrates e. Quantity and chemical make-up of saliva	1. Give the students a dental health knowledge test early in the year and again at the end of the year. 2. Provide the students with facts showing the prevalence of dental caries. 3. Discuss tooth decay and make a list of factors causing tooth decay. 4. Have the students display pictures or charts showing the stages of tooth decay. 5. Discuss the fact that the digestive process begins in the mouth.	*Books* Diehl, Harold S., *et al. Health and Safety for You.* Fait, Hollis F. *Health and Fitness for Modern Living.* *Filmstrips* *Winning First with Teeth.* American Dental Association. *The Teeth and Eating.* Encyclopaedia Britannica Educational Corp.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
f. Dental plaque g. Presence of bacteria	6. Have the students study dental tissues and saliva samples under the microscope.	*Pamphlets* "Dental Health Facts for Teachers." American Dental Association. "Dental Health Teaching Outline." American Dental Association. "Home Care of the Mouth." American Dental Association. "You Can Prevent Tooth Decay." American Dental Association. "Your Guide to Dental Health." American Dental Association.
Effective dental health necessitates both individual and professional care. 1. Individual care a. Technique and frequency of proper brushing b. Proper diet (low in sugar) c. Regular visits to the dentist d. Avoidance of injuries e. Use of fluoridated water f. Gum massage 2. Professional care a. Cleaning b. Taking X rays c. Treating diseases of the teeth and gums d. Treating problems of occlusion e. Extracting f. Treating bone disorders g. Providing fluoride applications h. Providing other services (fillings, etc.)	1. Have the students list ways an individual can maintain a healthy mouth. 2. Have the students make a diagram of their own teeth, indicating which ones have cavities and which have fillings. 3. Have the students submit questions about dental problems in advance of a visit by the school dentist. 4. Invite the school dentist or hygienist to discuss the prevention and control of dental diseases. 5. Invite the school dentist to discuss the causes of malocclusion. Ask him to elaborate on inherited and acquired tendencies and the treatment of the condition. 6. Discuss the application of fluoride to the surfaces of the teeth as a method of combating tooth decay. 7. Have a few students report on the effect of fluoridation on drinking water (odor, taste, color, cost). 8. Discuss the reasons why some people do not	*Books* American Dental Association. *Teeth, Health and Appearance.* Irwin, Leslie W., *et al. Foundations for Fitness.* *Films* *Brothers Make Sense.* American Dental Association. *Inside Story.* American Dental Association. *It's Your Health.* Massachusetts Department of Public Health. *Filmstrip* *Your Teeth and Their Care.* American Dental Association. *Pamphlets* "Diet and Dental Health." American Dental Association. "The Teens and the Teeth." American Dental Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	seek dental care (fear, ignorance, misconceptions, indifference, cost, availibility of services). 9. Discuss the American habit of eating sweet desserts at the end of a meal. 10. Designate a committee to study and report on fluorine experiments.	"Toothbrushing." American Dental Association. "X rays and Your Teeth." American Dental Association.
Good dental health is important to total health. 1. Aids in digestion of food 2. Provides contour to the face 3. Aids in formation of various sounds 4. Assists in creating a positive self-image	1. Discuss the effect of decayed, crooked, or missing front teeth on the personality. Identify mannerisms that may be acquired as a result of being self-conscious about a dental problem. 2. Discuss the importance of chewing (contributes to the enjoyment of foods, aids in the digestive process). 3. Discuss the fact that dental health contributes to personal appearance. 4. With the assistance of the dental hygienist, use disclosing tablets for self-testing. (Do this with permission from the parents.) Stress that it is a means of checking how effectively dental plaque and debris are removed from the teeth through brushing. 5. Have a group of students prepare a menu of snacks or appetizing foods that could be substituted for sweets. 6. Discuss sugars and the effects they have on teeth. Provide some facts as to the sugar content of a number of everyday foods. 7. Have each student keep a record of the amount of sugar in his diet for one week.	*Films* *Brothers Make Sense.* Massachusetts Department of Public Health. *Dentistry Through the Ages of Man.* Massachusetts Department of Public Health. *The Things that Really Count.* American Dental Association. *Filmstrips* *Teen-Age Teeth.* Stanley Bowmar Company. *Your Teeth and Their Care.* American Dental Association. *Pamphlet* "Between 13 and 18." American Dental Association.
If given proper care, a person's teeth can last his lifetime.	1. Using a model set of teeth, have a student demonstrate the proper method for brushing.	*Books* Byrd, Oliver E., *et al. Health (7).*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	2. Have the students study the causes of the following: (1) Halitosis. (2) Malocclusion. (3) Gingivitis. (4) Periodontal diseases.	*Pamphlet* "Toothbrushing." American Dental Association.
	3. Discuss the effectiveness of mouth washes in comparison with good dental care.	
	4. Have the students examine and study advertisements of mouth washes and compare prices of the different ones.	
	5. Have the students study, analyze, and evaluate the claims of advertisements on TV and in magazines relating to dentifrices.	
	6. Have a local dentist discuss some of the latest techniques in dentistry.	
	7. Discuss the following statement: Nearly everybody needs false teeth in old age.	
	8. Discuss habits that can contribute to periodontal disease (chewing soft food, not massaging gums, continued use of liquid reducing diets).	
	9. Discuss the results of neglected teeth (pain, loss of teeth, drifting of teeth, other possible situations).	
An alert and safety conscious individual can avoid dental accidents.	1. Discuss ways teeth can be broken or damaged and how this can be prevented.	*Book* Miller, Benjamin F., *et al. Investigating Your Health.*
	2. Have the students list ways to guard the teeth against undue injury.	
	3. Invite the director of physical education to demonstrate mouth pieces used in athletics.	
	4. Have one or two students explore and compare insurance coverage for dental injuries. They can	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	ask local insurance companies for information.	
Dental health practices can have an effect on the family, the community, and the nation.	1. Have interested students obtain statistics from local dentists on the status of dental health in the local community. 2. Have the students report on the cost of dental care. 3. Have the students study and compare the effectiveness and costs of electric toothbrushes to the family. They can ask local dentists for the information. 4. Encourage the students to explore the effect of family patterns on dental health and care and report to the class. 5. Invite a dentist to discuss dentures. 6. Have the students make pie diagrams showing the approximate percentage of the "family dollar" spent for: (1) Clothes. (2) Recreation. (3) Food. (4) Tobacco and liquor. (5) Dental care. 7. Have the students compare dental expenses for minor caries with more expensive dental work. 8. Have the students find out the number of dentists serving the community. 9. Have a committee of students study fluoridation in the community and debate whether or not fluorides should be added to the water supply. 10. Have the students prepare a TV program on the fluoridation issue.	*Books* Brotman, Robert H. *The Family Book of the Mouth.* Dunning, James M. *Principles of Dental Health.* Tharpe, Rayford W. *Your Teeth, Their Importance and Care.* *Pamphlets* "Answers to Criticisms of Fluoridation." American Dental Association. "A Guide to Reading on Fluoridation." United States Department of Health, Education and Welfare. "Better Teeth for Life...Fluoridation." United States Government Printing Office. "Fluoridation Handbook for Massachusetts Communities." Massachusetts Department of Public Health.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	11. Discuss the most recent laws on fluoridation of community water supplies.	
Scientists are continually working to find ways to prevent dental caries.	1. Have a student write to the National Institute of Dental Research for information on dental research.	*Book*
	2. Discuss the various research projects being conducted at the National Institute of Dental Research.	Byrd, Oliver E., *et al. Health - Today and Tomorrow.*

Area I **PHYSICAL HEALTH**

Field of Study DISEASES AND DISORDERS (Junior High)

Objectives

To help the student to:

1. Develop an understanding of communicable diseases and chronic and degenerative health conditions.
2. Form positive attitudes towards the acceptance of preventive efforts for disease control.
3. Assume responsibility for the prevention and control of diseases and disorders.

DISEASES AND DISORDERS (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The individual and agents of disease interact constantly. Disease classifications 1. Communicable 2. Infectious 3. Non-communicable 4. Functional 5. Emotional 6. Mental 7. Chronic 8. Degenerative	1. Discuss the definition of the word *disease.* 2. Have the students identify the disease classifications. 3. Discuss the terms *host, environment, agent,* and *microorganism* as they relate to diseases and disorders. 4. Have the students do research on how a disease develops in the body. 5. Discuss the importance of scientific research in controlling disease.	*Books* Byrd, Oliver E., *et al. Health - Today and Tomorrow.* Dubos, Rene, and Pines, Maya. *Health and Disease.* Gmur, Ben C., *et al. Making Health Decisions.* Miller, Benjamin F. *Investigating Your Health.* *Transparencies* *Man's Ability to Control Disease.* 3M Company.
A series of events must take place for an infectious disease to occur. 1. Causative agents a. Bacteria b. Viruses c. Protozoa e. Rickettsia f. Helminths 2. Sources of causative agents a. Man b. Animals c. Environment 3. Mode of escape a. Respiratory organs b. Digestive system c. Break in the body membrane d. Urinary tract e. Blood f. Reproductive system	1. Have the students identify and do research on the various causative agents of infectious diseases. 2. Have a few students report on various organisms and microorganisms and diseases caused by each. 3. Discuss the differences in the structures of the various causative agents. 4. Discuss diseases that are common to man and identify, if possible, why they are peculiar to man. 5. Discuss how the causative agent may escape (through the respiratory system, the intestinal tract, body lesions). 6. Have committees of students do research and report on the ways infectious diseases are transmitted. 7. Discuss the significance of a person's sus-	*Books* Byrd, Oliver E., *et al. Health (8).* Dubos, Rene J. *The Mirage of Health.* Fait, Hollis F. *Health and Fitness.* Gmur, Ben C., *et al. Making Health Decisions.* *Film* *Man Against Microbe.* Metropolitan Life Insurance Company. *Transparencies* *Breaking the Chain of Infection.* 3M Company. *Identifying Sources.* 3M Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
4. Mode of transmission a. Direct contact b. Water and food c. Vectors d. Inanimate objects 5. Portals of entry a. Respiratory tract b. Digestive system c. Genito-urinary tract d. Breaks in body membranes 6. Susceptibility to disease	ceptibility to disease and the importance of building resistance to disease. 8. Have each student explore his own family background to discover if there are any diseases common to the family. 9. Have the students explore the susceptibility of some racial and ethnic groups to certain diseases. 10. Have the school nurse discuss the various tests for determining the susceptibility to disease.	
The body has effective defenses against disease. 1. Effective barriers a. Skin b. Mucous membrane c. Stomach acids d. Tears e. White blood cells f. Body temperature 2. Natural immunity 3. Acquired immunity	1. Discuss the defenses the body has against diseases. 2. Discuss the effect sleep, exercise, and food have on the body's defense against disease. 3. Show the students some prepared slides of blood samples illustrating the structure of white blood cells. Discuss how these cells overcome disease microorganisms. 4. Discuss how the body develops its own natural immunity. 5. Have each student prepare a chart of the disease immunizations he has had. 6. Have the students summarize the number and kinds of immunizations received by the members of the class. 7. Have the students read about scientists who have made valuable contributions in controlling diseases.	*Books* Byrd, Oliver E., *et al.* *Health - Today and Tomorrow.* Turner, Claire E. *Personal and Community Health.* *Film* *Immunization.* Encyclopaedia Britannica Educational Corp. *Transparencies* *Antigens and Antibodies.* 3M Company. *Factors Which Affect Protection from Disease.* 3M Company.
Not all diseases are infectious. 1. Metabolic	1. Have the students do research and report on the conditions that may result from an excess	*Books* Bauer, W.W. *Today's Health Guide.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
2. Deficiency 3. Mental and psychosomatic 4. Chronic 5. Hereditary	or deficiency of the hormones that regulate body metabolism. 2. Have a few students explore the deficiency diseases that result from a lack of vitamins, minerals, or nutrients. 3. Discuss the meaning of the work *chronic.* List some chronic conditions. 4. Have the students read about diseases accociated with heredity. 5. View and discuss the film *The Embattled Cell.* 6. Have a student obtain statistics on the number of deaths due to heart diseases in the State. Compare the results with statistics at the national level. 7. Discuss the importance of preventing cardiovascular diseases. 8. Have the students make posters identifying preventive approaches for cancer and heart diseases. 9. Discuss the state law requiring school personnel to have a periodic examination for tuberculosis. 10. Have one or two students do research on the preventive disease programs in use and being developed. Discuss the programs.	Benjamin, Herbert S. *A Little Sickness Is Good for You.* Dubos, Rene J. *The Mirage of Health.* Gertler, Menard M. *You Can Predict Your Heart Attack and Prevent It.* Graham, Marion F. *Prescription for Life.* Kerner, Fred. *Stress and Your Heart.* Sutton, Maurice. *Cancer Explained.* *Film* *The Embattled Cell.* Local Cancer Society. *Pamphlets* "Facts About Strokes." Local Heart Association. "High Blood Pressure." Local Heart Association. "Innocent Heart Murmurs." Local Heart Association. "Introduction to Respiratory Diseases." Local Tuberculosis and Respiratory Disease Association. "Tuberculin Testing Today." Local Tuberculosis and Respiratory Disease Association. "Tuberculin Tests for Your Pupils." Local Tuberculosis and Respiratory Disease Association. *Transparencies* *Breaking the Chain of Infection.* 3M Company. *Factors Which Affect Protection from Disease.* 3M Company.
Although adolescence is normally a healthy period of life, teen-agers are subject to illness.	1. Have each student do research on an illness of special interest to him. He can report the caus-	*Books* Adams, John M. *Viruses and Colds: The Modern Plague.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
1. Respiratory diseases a. Colds b. Flu c. Pneumonia d. Tuberculosis e. Asthma f. Hay fever 2. Other infectious diseases a. Infectious mononucleosis b. Infectious hepatitis c. Polio d. Dysentery and typhoid e. Venereal diseases 3. Psychosomatic and nervous disorders a. Colitis b. Epilepsy c. Multiple sclerosis 4. Metabolic and circulatory diseases a. Diabetes mellitus b. Rheumatic fever c. Congenital heart d. Anemia	ses, symptoms, and possible cure for the illness to the class. 2. Have the students keep a record of the number of family members affected by colds and the duration of the colds. 3. Discuss the state law that protects the individual against publication of venereal disease records (Chapter III-Section 119). 4. Invite a health educator of the local tuberculosis and respiratory disease association to discuss the problem of respiratory diseases. 5. Discuss some of the nervous disorders that attack the muscular system.	Blanc, Albert D. *So You Have Asthma.* Fisher, Peter J. *The Polio Story.* Schneiders, Alexander A. *A Curriculum Guide on Venereal Diseases for Junior High School Teachers.* Shevlin, Julius, and Goldberg, Isidor. *A Programed Unit on Venereal Disease.* *Films* *The Human Body: Nutrition and Metabolism.* Coronet Films. *Life and Breath. The Run Around.* Local Tuberculosis and Respiratory Disease Association. *Pamphlets* "Air Pollution Primer." Local Tuberculosis and Respiratory Disease Association. "Breathing: What You Need to Know." Local Tuberculosis and Respiratory Disease Association. "Fact Sheets - Muscular Disorders." Allyn & Bacon, Inc. "Introduction to Respiratory Diseases." Lyons and Carnahan. "Venereal Diseases." Allyn & Bacon, Inc. "Venereal Diseases." Lyons and Carnahan. "Your Breathing Problems." Local Tuberculosis and Respiratory Disease Association. "Your Muscles: How They Work and Why They Hurt." Muscular Dystrophy Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Each individual can help prevent diseases and disorders.	1. Discuss the importance of maintaining good health to prevent disease. 2. Have a student make a chart of symptoms that are warning signs of disease. Discuss these symptoms and the importance of acting to prevent problems. 3. Discuss the importance of an "alertist" rather than an "alarmist" attitude towards prevention. 4. Discuss the following saying: An ounce of prevention is worth a pound of cure. 5. Discuss the responsibility of the various people in the community in attempting to control venereal diseases.	*Transparencies* *Contribution of Medical Research.* 3M Company. *Man's Ability to Control Disease.* 3M Company.

Area I PHYSICAL HEALTH

Field of Study FITNESS AND BODY DYNAMICS (Junior High)

Objectives

To help the student to:

1. Understand that activity and exercise are essential in order to maintain efficient skeletal and muscular systems.
2. Appreciate that wholesome physical activities are necessary for a balanced program of living.
3. Develop regular habits for participating in a variety of physical activities.

FITNESS AND BODY DYNAMICS (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Fitness involves all aspects of an individual's life. 1. Total fitness a. Mental b. Physical c. Emotional d. Social 2. Family fitness a. Variety of indoor and outdoor activities b. Opportunities for each member to participate c. Close cooperation 3. Body dynamics 4. Interdependence of fitness and body dynamics	1. Have students do research and report on the importance the Greeks and Romans placed upon the healthy body. 2. Discuss the meaning of the work *fitness* and the interrelatedness of physical, mental, emotional, and social fitness. 3. Discuss the following statement: It is impossible to achieve physical fitness without good health. 4. Have the students list the local areas that are available to people of all ages for daily activities. 5. Have the students list activities that family members can participate in together. 6. Have each student plan a week-end program of activities for the members of his family. 7. Discuss the opportunities for exercise while working at home (raking leaves, removing snow, caring for the lawn). 8. Have the students identify the term *body dynamics* and discuss how dynamic fitness is more than physical fitness.	*Books* Kusinitz, Ivan., *et al.* *The Challenge of Physical Fitness.* Life, John R., *et al.* *Concepts in Health.* Wassel, Janet A. *Fitness for the Modern Teenager.* *Films* *Focus on Fitness.* Eastman Kodak Company. *Physical Fitness and Good Health.* Massachusetts Department of Education. *Pamphlets* "My Reflections." New England Dairy and Food Council. "Seven Paths to Fitness." American Medical Association.
Regular activity is necessary for maintaining physical fitness. 1. Body fitness a. Increases with increased activity b. Decreases with decreased activity 2. General fitness a. Involves over-all strength and endurance b. Permits easy performance of daily tasks c. Prepares individuals to handle emergencies	1. Have each student keep a record of his personal physical activities for several weeks. 2. Demonstrate how to place the arm in a sling in the event of an arm injury. Discuss what happens when the arm remains in this position for a prolonged period of time. 3. Have the students do research and report on the effects of physical activity on the physiological functioning of the heart, lungs, and other organs. 4. To demonstrate variations in pulse rate before	*Books* Byrd, Oliver., *et al.* *Health - Today and Tomorrow.* Guild, Warren R. *How to Keep Fit and Enjoy It.* *Films* *Exercise and Health.* Coronet Films. *Hemo the Magnificent.* Bell Telephone Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
3. Specific fitness (serves individual needs and interests for special strength and skill development)	and after exercise, measure changes in pulse rate of volunteers as they sit quietly, touch the floor ten times in succession, and then rest for two minutes. Discuss the results. 5. Invite the school nurse to measure the blood pressure of the students before, during, and after exercise. Compare and analyze individual differences. 6. Have the students identify activities that require general body fitness. 7. Discuss the importance of parental interest in physical activity in influencing children to enjoy and participate in activities. 8. Discuss the importance of a comprehensive physical education program for each teenager. 9. Discuss the astronauts' conditioning program.	
A physically fit person possesses many attributes. 1. Looks better 2. Functions better 3. Feels better 4. Performs better	1. Discuss the attributes and appearance of the physically fit person. 2. Discuss and analyze why the body which functions efficiently is able to survive stress and strain. 3. Discuss the importance of changing into appropriate clothing before participating in vigorous activities. 4. Discuss the relationship between being physically active and having a feeling of well-being. 5. Have the students bring in a variety of pictures of individuals performing physical activities. Discuss the evidence indicating that these performers possess attributes of physical fitness. 6. Have those students who are talented in art	*Books* Miller, Benjamin F. *Investigating Your Health.* Schneider, Robert E. *Health and Growth.* White, Patricia. *Body Contouring, Fitness and Poise.* *Pamphlets* "A Boy and His Physique." New England Dairy and Food Council. "A Girl and Her Figure." New England Dairy and Food Council. "The Wonderful Human Machine." American Medical Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	sketch the human figure performing various skills. 7. Have the students do research and report on the various body systems necessary for movement. Demonstrate automatic and controlled movements.	
The human body is designed to move. 1. Movement a. Automatic b. Controlled 2. Mechanics of movement a. Nervous system b. Muscular system c. Skeletal system 3. Energy for movement a. Metabolism b. Energy foods	1. Have the physical education teacher demonstrate the range of movement of the various body parts. 2. Discuss the fallacy that any form of vigorous activity will develop large, unsightly muscles in girls. 3. Have the home economics teacher discuss the nutritional needs of active teen-agers and the importance of energy foods at this stage of growth and development. 4. Have the student use bones and joints of aniamls to show how the movements of animals relate to the movements of man.	*Article* "The Physiology of Exercise." *Scientific American.* May, 1965. *Books* *Vim.* President's Council on Physical Fitness. *Vigor.* President's Council on Physical Fitness *Youth Physical Fitness.* President's Council on Physical Fitness. *Pamphlet* "Exercise and Fitness." American Association for Health; Physical Education and Recreation.
The individual must assume responsibility for his own degree of fitness.	1. Have the students work in groups to plan fitness programs. Compare the programs planned by the various groups. 2. Discuss the need for determination, self-discipline, and enthusiasm in carrying out a program of fitness. 3. Discuss the importance of a medical check-up before undertaking a program of strenuous exercise. 4. Arrange to have the physical education instructor administer several physical fitness tests.	*Books* Byrd, Oliver , *et al.* *Health - Today and Tomorrow.* Hillcourt, William. *Your Guide to Fitness.* Irwin, Leslie W., *et al.* *Foundations for Fitness.* Prudden, Bonnie. *Teenage Fitness.* Yoho, Robert O. *Health for Today.* *Films* *Exercise and Fitness.* McGraw-Hill Book Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	Discuss the purpose of the tests and the results of the findings.	*Vigor.* Massachusetts Department of Education. *Vim.* Massachusetts Department of Education. *Film-Loop* *Sport Skills.* Ealing Film-Loops.
Modern technology has created a sedentary way of life.	1. Discuss the effect of the automobile on the physical fitness of the American people. 2. Discuss the effect of prolonged inactivity on the body. 3. With the assistance of the community recreation and police departments, have the students map out a safe route for a bicycle tour of the community. Invite members of the faculty to join the tour. 4. Have each student list the physical activities he performs each day. Discuss the different activities and have each student evaluate his own need for improvement. 5. Discuss the place of spectator sports in a school activities program. 6. Discuss the following statement made by John F. Kennedy: "The softening process of our civilization continues to carry on its persistent erosion."	*Books* Cooper, Kenneth H. *The New Aerobics.* White, Paul Dudley. *Fitness for the Whole Family.* *Film* *Vigorous Activities in Physical Education.* Massachusetts Department of Education.

Area I **PHYSICAL HEALTH**

Field of Study **SENSORY PERCEPTION** (Junior High)

Objectives

To help the student to:

1. Understand how the senses contribute to the well-being of the individual.
2. Appreciate the critical nature of the senses in human life.
3. Understand how the senses can be safeguarded.
4. Assume responsibility for protecting his own sense organs and those of others.

SENSORY PERCEPTION (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
A person's capacity to function depends largely on his ability to see.	1. Discuss the importance of good vision in sports, school success, driving, etc. 2. Invite the school nurse or a local eye doctor to explain and/or demonstrate the procedure for eye examinations. 3. Discuss the need for periodic eye examinations. 4. Have a student briefly describe the anatomy of the eye using a chart or a model. Discuss the complexity of the eye and compare it with a camera. 5. Show an action-filled photograph to the class for a few seconds and let various "eye-witnesses" describe what they saw. 6. Discuss the importance of the eyes in providing opportunities for the individual to establish contact with his environment. 7. Have a student do research on the recent legislation on safety lenses for eyeglasses. 8. Discuss the problems created by the loss of sight in one eye. 9. Discuss the responsibility each individual has to protect his vision and the vision of others. 10. Have two or three students interview an ophthalmologist, optometrist, and optician and report their findings to the class. 11. Discuss various symptoms related to eye problems and the various specialists to contact for advice. 12. Have a student report on the nature of contact lenses. 13. Discuss the importance of good nutrition to good vision. 14. Have a student report on night blindness.	*Article* "Movements of the Eye." *Scientific American.* August, 1968. *Books* Asher, Harry. *Experiments in Seeing.* Life, John R., *et al. Concepts in Health (4).* Miller, Benjamin F., *et al. Making Health Decisions.* Schneider, Robert E. *Health and Growth.* Seeman, Bernard. *Your Sight: Folklore, Fact and Common Sense.* *Chart* *Horizontal Section of Right Eyeball.* American Optometric Association. *Films* *Eyes: Their Structure and Function.* Coronet Films. *Gateways to the Mind.* Bell Telephone Company. *Filmstrips* *The Eyes and Their Care.* Encyclopaedia Britannica Educational Corp. *You and Your Eyes.* Encyclopaedia Britannica Educational Corp. *Pamphlet* "Whom Shall I Consult About My Eyes?" American Medical Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	15. Have a few students measure and record the intensity of light in various locations in the school building. 16. Have some students study and report on the common eye problems that may be prevented.	
Good hearing contributes to a normal and healthy life.	1. Have the students use models or diagrams to review the anatomy of the ear. 2. Have the school nurse or a technician demonstrate the audiometer test. 3. Discuss the complex mechanism of the ear and how sound waves are transmitted to the brain for interpretation. 4. Have the students bring in current articles relating to loud rock music and hearing loss. 5. Demonstrate safe ways to listen to music. 6. Have a student compare hearing to a microphone and amplifying system and identify decibles and intensity of sound. 7. List precautions which can be taken to protect the ears from injury and infection. 8. Have a student report on the relationship between sound stimuli and reaction time in performing skills. 9. Have a student do research and report on the audible range of tones for the normal ear. 10. Discuss how the ear is protected against dirt and other foreign bodies (tiny hairs in the canal, wax secreted by glands). 11. Have a student report on the effects of noise on the human body. 12. Have a student interview an otologist and report to the class.	*Books* Byrd, Oliver E., *et al. Health Today and Tomorrow.* Davis, Hallowell, and Silverman, S. Richard. *Hearing and Deafness.* Life, John R. *Concepts in Health (4).* Schneider, Robert E. *Health and Growth.* Williams, Dorothea M. *Health Science (1).* *Chart* *The Human Ear.* Sonotone Corporation. *Films* *Gateway to the Mind.* Bell Telephone Company. *Ears: Their Structure and Care.* Coronet Films. *Filmstrip* *Ears and Hearing.* Encyclopaedia Britannica Educational Corp. *Pamphlets* "Eyes that See and Ears that Hear." John Hancock Life Insurance Co, "Hearing Loss: Hope Through Research." United States Department of Health, Education and Welfare.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		"How To Protect Your Hearing." United States Department of Health, Education and Welfare. "When Hearing Fades." American Medical Association.
The senses of taste and smell add pleasure to living and increase one's awareness to his surroundings.	1. Discuss the reasons why animals have an acute sense of smell. 2. Have the students review the structure of the skin on the tongue. 3. Have the students list dangerous situations which can be identified through the sense of smell. 4. Discuss the importance of properly functioning taste buds. 5. Discuss the senses that heighten the enjoyment of eating (sight, hearing, touch, smell). 6. Have a student report on the senses of taste and smell as chemical senses.	*Books* Williams, Dorothea M. *Health Science (1).* Wyburn, G.M. *The Nervous System.* *Films* *The Nose.* Encyclopaedia Britannica Educational Corp. *Nose, Throat and Ears.* McGraw-Hill Book Company.
The skin provides a variety of kinds of feelings.	1. Have the students review the structure of the skin. 2. Discuss the kinds of feelings one experiences through the skin (pain, heat, cold, etc.). 3. Have the students identify ways the skin can warn the body of danger.	
The senses are priceless possessions, vital to effective living.	1. Have some students do research and report on the function of the sensory nerves in relaying physical sensations. 2. Discuss the fact that the sensory nerves carry sensations from the environment to the brain. 3. Discuss what the environment would be like	*Articles* "The Special Sense Organs." *Today's Health.* May, 1960. "The Synapse." *Scientific American.* January, 1965.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	if people could not see, hear, taste or smell. 4. Have the students list ways they can assist individuals who have lost their vision or hearing. 5. Plan to have interested students read to a blind person or participate in an activity with a deaf person. 6. Discuss the fact that people vary in the degree to which they use their senses. Have the students give examples. 7. Discuss the fact that people who lose one of the senses often develop acute perception in the remaining senses to compensate for the loss. 8. Have a student report on the kinesthetic sense and how it relates to the senses of vision and hearing. 9. Discuss the advantages of having keen senses.	*Books* Byrd, Oliver E., *et al. Health - Today and Tomorrow.* Case, James. *Sensory Mechanisms.* Gardner, Ernest. *Fundamentals of Neurology.* Irwin, Leslie W., *et al. Foundations for Fitness.* Irwin, Leslie W., *et al. Patterns for Living.* Wilentz, Joan Steen. *The Senses of Man.* *Films* *The Nervous System.* Coronet Films. *The Senses.* McGraw-Hill Book Company. *You and Your Five Senses.* Walt Disney Productions. *Filmstrips* *The Human Sense Organs.* Society for Visual Education. *Man's Senses in Action.* Popular Science Publishing Co., Inc. *The Nervous System.* Popular Science Publishing Co., Inc.

Area I PHYSICAL HEALTH

Field of Study **SLEEP, REST, AND RELAXATION** (Junior High)

Objectives

To help the student to:

1. Understand the influence of fatigue, sleep, rest, and relaxation on total health.
2. Appreciate that environmental pressures affect the body and create a need for adjustments.
3. Assume responsibility for a balance in purposeful activity, sleep, rest, and relaxation.

SLEEP, REST, AND RELAXATION (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Sleep is essential to life and to the restoration of tissues.	1. Discuss the purpose of sleep. 2. Discuss the effect the lack of sleep can have on physical and mental performance. 3. Discuss the effect emotions can have on an individual's ability to sleep. 4. Discuss various advertisements that relate to sleep and relaxation. Then consider approaches to sleep and rest that can be used in place of sleeping pills and tranquilizers. 5. Discuss the importance of sleep and rest in helping an individual keep his body defenses at a high level. 6. Have a few students do research and report on the physiological changes taking place during sleep.	*Books* Byrd, Oliver E., *et al. Health - Today and Tomorrow.* Moolman, Valerie. *Forty Winks at the Drop of a Hat.* Yoho, Robert O. *Health for Today.* *Film* *Rest and Health.* Coronet Films. *Transparencies* *Physical Care and Self-Respect.* GAF Corporation.
Recreation serves the body as a form of rest.	1. Have the students define the word *recreation* and discuss the fact that recreational pursuits help an individual to develop his creative talents. 2. Have the students prepare a list of recreational facilities avaialble in the community for people of all ages. 3. Discuss the factors affecting wise choice of leisure time activities (peer group decisions, parental interest, mobility of youth, permissiveness).	*Book* Irwin, Leslie W., *et al. Foundations for Fitness.*
Fatigue is a condition of the whole body. 1. Acute fatigue (relieved promptly by rest or change of activity) 2. Chronic fatigue (may be sign of general ill health) 3. Fatigue may	1. Discuss and analyze the importance of changing activities as a method of preventing fatigue. 2. Discuss the causes of fatigue. 3. Have the students observe their younger brothers and sisters at home to determine when they show symptoms of fatigue. 4. Discuss the fact that tension can cause fatigue.	*Books* Gmur, Ben C., *et al. Making Health Decisions.* Lawrence, Thomas Gordon, *et al. Your Health and Safety.* *Pamphlet*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
a. Cause accidents b. Lower body resistance to infections	5. Assign students to investigate the process of fatigue as it results from metabolic end-products in body cells. 6. Discuss the relationship between the degree of fatigue and proneness towards serious accidents. Relate this discussion to the problem of fatigue and highway safety.	"Sleep the Great Restorer." Metropolitan Life Insurance Company.
The environment creates situations directly affecting the body's ability to relax and sleep.	1. Discuss the effect of noise on an individual's ability to sleep. 2. Have the students identify environmental conditions affecting sleep (blankets, mattresses, ventilation, lighting). 3. Have the students observe tense situations at home. Discuss the fact that a person's surroundings can cause tension and create fatigue.	*Book* Rathbone, Josephine L. *Relaxation.*
A balanced program of activity, work, rest, and relaxation requires planning.	1. Have the students obtain information on the balanced routine planned and executed by the astronauts. 2. Have the students make out individual schedules including time for work, rest, activity, and recreation. 3. Have the students conduct a survey of their television viewing habits and determine the amount of time spent watching TV. 4. Ask several students to volunteer to study the habits of their pets to determine any patterns the animals follow instinctively. 5. Discuss the responsibility of each family member for a balanced activity program in the home.	*Books* Thackston, John A., and Newsom, William T. *Keeping Our Health.* Thackston, John A., and Newsom, William T. *Protecting Our Health.* *Film* *Exercise and Rest.* Coronet Films.

Area II MENTAL AND SOCIAL HEALTH

Field of Study FAMILY LIVING (Junior High)

Objectives

To help the student to:

1. Acquire information regarding his family and peer relationships as they relate to his future as an adult, a marriage partner, and a parent.
2. Develop a firm foundation of understanding and positive attitudes toward his family and himself.
3. Develop love and responsibility for family members and an appreciation of family living.
4. Acquire an understanding of the physical, mental, emotional, and social qualities necessary for the well-being of the individual as he relates to himself and to others.
5. Appreciate that the qualities of masculinity and femininity grow and develop through a variety of experiences and may change from time to time.
6. Understand that feelings and emotions are revealed in various ways.

FAMILY LIVING (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The family is the basic unit of structure in our society. 1. Family units a. Ethnic b. Adopted c. One-parent d. Older relatives in the home e. Education f. Economic 2. Cultural differences a. Family interaction b. Environmental	1. Have the class list the characteristics of a family unit. 2. Have the students formulate a definition of the word *family.* 3. Assign students to do research on different countries and their cultural differences as they apply to family interaction. 4. Discuss urban, suburban, and rural families and how they differ. 5. Discuss the problems of growing up in urban, suburban, and rural areas.	*Books* Byrd, Oliver E., *et al. Health Today - and Tomorrow.* Durall, Evelyn. *Family Development.* Goode, W.J. *World Revolution and Family Patterns.* Levin, Ira. *This Perfect Day.* Mead, Margaret. *Coming of Age in Samoa.* Smart, Russel, and Smart, Mollie. *Living in Families.* *Film* *Family Life.* Coronet Films.
Certain attitudes and habits of the family are in a constant state of flux. 1. Family (basic unit of society) a. Purpose (1) Provides physical care (2) Contributes toward personality development (3) Develops intellectual, emotional, and spiritual values (4) Maintains continuity of society (5) Disciplines societal controls b. Early self-contained family unit (1) Struggled for survival (2) Separated by distance from other families (3) Limited by lack of transportation (4) Home centered entertainment (5) Members dependent on each other to meet needs (6) Worked long hours c. Family affected by Industrial Revolution	1. Discuss the following: What are parents for? 2. Discuss and list the advantages of being a family member. 3. Discuss the differences between self-discipline and imposed discipline. 4. Arrange for a period in which the class receives no direction from the teacher. Have the students evaluate the period at the next class meeting. 5. Have each student write a paper comparing families in 1770, 1870, and 1970. 6. Have the students of various national backgrounds compare the customs and traditions of their ethnic groups pertaining to marriage and family. 7. Have the students list factors they consider would make up an ideal family situation. 8. Discuss factors the students feel have caused some of the changes in family living. Have them	*Books* Coser, Rose L. *The Family: Its Structure and Functions.* Cross, Aleene. *Enjoying Family Living.* Nimkoff, M.F. *Comparative Family Systems.* Queen, Stuart. *The Family in Various Cultures.* Stephens, W.N. *Family in Cross-culture Perspective.* Thal, Helen M. *Your Family and Its Money.* *Film* *Our Changing Family Life.* McGraw-Hill Book Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
(1) Speed of industrial advancement created new pressures (travel time, father away from family, working mothers, entertainment outside the home) (2) Development of corporations, boarding houses resulted in individuals leaving family units (3) Economic factors forced family mobility (job transfer)	project what the family of 2070 will be like. 9. Have each student write a paper on the customs and traditions of his own family.	
Rights and privileges within the family carry responsibilities that must be fulfilled for effective growth of the family unit.	1. Discuss the differences between the rights and privileges of parents and children. 2. Have the students role play interactions between parents and children. Discuss the responsibility of parenthood. 3. Discuss how jobs around the house should be assigned. 4. Have the students role play a situation in which a brother enters a sister's room without knocking. Reverse the roles.	*Books* Ginott, Haim G. *Between Parent and Child.* Holt, John C. *How Children Fail.* Holt, John C. *How Children Learn.* Landis, Judson T., and Landis, Mary G. *Building Your Life.* *Tape* *Parent-Child Relationships.* Educational Progress Corporation.
Interpersonal relationships are based upon the interraction of the individual personalities. 1. Interaction of family members within the family 2. Interaction of a family member with people outside the family group 3. Interaction of family groups with people outside the family	1. Discuss various methods used to record family events (movies, photograph albums, baby books, diaries). 2. Have the students develop committee reports on: (1) The importance of respect for authority. (2) The need for family discipline. (3) The meaning of family cooperation. (4) How responsibilities should be delegated. 3. Have the students identify and discuss personal rights that should be respected in a family.	*Filmstrips* *Dare to Be Different.* Guidance Associates. *Learning to Understand Your Parents.* Guidance Associates. *Your Personality: The You Others Know.* Guidance Associates. *Transparencies* *Development of Concepts and Attitudes.* GAF Corporation.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	4. Have the students develop and present a skit of a family solving basic problems and making plans for the future. 5. Have the students list some values accepted by the family that might not be accepted by society in general. Discuss the conflicts that may evolve. 6. Discuss the importance of communication and understanding within the family.	
The emotional needs of adults and children in a family must be considered if the family is to survive as a viable unit. 1. Family units differ a. Parents and children b. Grandparents and parents and children c. Separation, divorce, and children 2. Family in a crisis a. Family tragedy b. Divorce proceedings c. Financial insecurity	1. Have the students work in small groups to develop ideas on how a family can adjust to changes in the family unit. 2. Have the students tell about times when their parents have come home much later than expected. Discuss their reactions and feelings and what this indicates in terms of family expectations. 3. Discuss the emotional needs of family members at the time of a family crisis.	
Attitudes toward masculinity and femininity help individuals to understand themselves as well as others. 1. Making and keeping friends 2. Interest in other people 3. Loyalty, honesty, dependability 4. Pride in one's own sex 5. Respect for opposite sex 6. Shared male-female characteristics 7. Negative attitudes	1. Have the students consider and discuss the following: (1) How they show love and affection toward the family. (2) What responsibilities they accept in their families. (3) Whether or not their parents expect too much of them. (4) Whether all members of their families are treated the same. 2. Discuss the difference between arguing and expressing an opinion.	*Books* Gmur, Ben C., *et al.* *Making Health Decisions.* Julian, Cloyd J., and Jackson, Elizabeth N. *Modern Sex Education.* *Filmstrips* *I Never Looked at It that Way Before.* Guidance Associates. *The Tuned Out Generation.* Guidance Associates.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
a. Possessive b. Self-centered c. Prejudice 8. Peer influence 9. Self-respect 10. Feelings (acceptance, rejection) 11. Emotional and social growth	3. Have the students observe whether people become conscious of the need to make their behavior acceptable. 4. Discuss the behavior expected of girls. Of boys. 5. Discuss the importance of: (1) Introducing people properly. (2) Cooperating with others. (3) Being a good listener. (4) Sharing. (5) Accepting peer decisions.	*Values for Teen-agers: The Choice Is Yours.* Guidance Associates.
Behavioral aspirations of youth determine, in part, social codes and mores of today. 1. Types of dates a. Blind b. Double c. Groups 2. Purpose a. Getting along with the opposite sex b. Learning to recognize differences in values and attitudes c. Learning to enjoy company of opposite sex d. Developing close friendships 3. Pressures experienced in dating a. Drinking b. Drug use c. Excessive petting 4. Establishment of personal attitudes a. Age b. Parental attitudes c. Own attitudes d. Frequency of dating 5. Responsibilities to be considered in dating a. Having regard for parental standards	1. Discuss whether or not it is important to date. 2. Discuss the social pressures in life that make it seem important to the individual to date. 3. Discuss the difficulty of always doing what one thinks is right and why it is difficult sometimes to take a stand opposing friends and associates. 4. Discuss the purpose and function of social codes. 5. Have the students consider some of the problems involved when an abstainer attends a party where people are drinking and smoking marijuana. 6. Have the students role play a situation where a teen-ager has to make a decision about staying at an unchaperoned party. 7. Discuss how two people possessing two different sets of values can avoid and/or solve misunderstandings which might occur on a date.	*Book* Raths, Louis E., *et al. Values and Teaching: Working with Values in the Classroom.* *Filmstrips* *Ready for Dating.* Society for Visual Education, Inc. *What to Do on a Date.* Society for Visual Education, Inc. *Values for Teen-agers: The Choice Is Yours.* Guidance Associates. *Films* *Getting Along with Parents.* Encyclopaedia Britannica Educational Corp. *Pamphlets* "Dating Tips for Teens." Science Research Associates.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
b. Having regard for personal standards c. Understanding of, and respect for each other's moral code d. Appreciating and considering the emotional involvement of others e. Making decisions in regard to personal actions		

Area III CONSUMER AND ENVIRONMENTAL HEALTH

Field of Study **COMMUNITY HEALTH** **(Junior High)**

Objectives

To help the student to:

1. **Understand the health services provided by the community.**
2. **Appreciate the functions of those responsible for protecting the health of the community.**
3. **Accept responsibility for his own behavior in relation to community health.**
4. **Understand the scope of the medical care system.**
5. **Become aware of health problems of people around the world.**

COMMUNITY HEALTH (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Health services are provided by the community. 1. Local health department 2. Hospitals and clinics 3. State and federal health agencies 4. Professional medical organizations 5. Allied health-centered organizations 6. Others	1. Invite a representative (sanitary engineer) of the local health department to discuss services provided by the health department. 2. Have the students investigate laws pertaining to food production and distribution, control of communicable diseases, and radiation. 3. Have the students investigate the community's plans for civil defense. 4. Have the students compare and contrast the services of voluntary health agencies with those of county and state health departments. Organize a field trip to one of these agencies. 5. Have the students survey health facilities in the community (physicians, specialists, dentists, hospitals, clinics). 6. Have the students find out how a family in the community would meet its medical emergencies.	*Books* Byrd, Oliver E., *et al. Health (7-8).* Irwin, Leslie W., *et al. Patterns for Living.* Fait, Hollis F. *Health and Fitness for Modern Living.* *Films* *Community Health and You.* McGraw-Hill Book Company. *Health - You and Your Helpers.* Cahill.
Each individual is responsible for his own health. 1. Seeks advice of qualified health specialists 2. Seeks competent family health advisors when necessary (physician, dentist, psychiatrist)	1. Invite health specialists to discuss the relationship of physical, mental, and social health. 2. Invite a behavioral psychologist to discuss "motivation." 3. Discuss problems relating to community health. 4. Discuss the dangers of seeking medical and dental treatment from persons who are not licensed to practice. 5. Have a student contact the local medical society for information on the services made available by the organization. 6. Have the students look up the local laws protecting persons using medical services.	*Books* Byrd, Oliver E., *et al. Health (7-8).* Byrd, Oliver E., *et al. Health - Today and Tomorrow.* *Film* *Community Health Is Up to You.* McGraw-Hill Book Company.

437

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Each individual has a responsibility for community health. 1. Home 2. School 3. Neighborhood	1. Have the students develop a check list of items in and around their homes that affect community health. 2. Invite the town engineer to discuss laws pertaining to home plumbing, sewage, public rest rooms, etc. 3. Have the students study the school health program (medical examinations, epidemic control, first-aid care). 4. Develop small group projects to help students become involved in learning more about community health in the neighborhood. 5. Invite a member of the local health department to discuss the individual's role in improving community health.	*Films* *Improving America's Health.* Coronet Films. *Community Health and You.* McGraw-Hill Book Company. *Transparencies* *Community Health Processes.* 3M Company.
An understanding of the scope of the medical care system is essential. 1. The system itself a. Hospitals b. Clinics 2. Problems of the system a. Facilities b. Personnel (1) Medical (2) Paramedical (3) Non-medical c. Costs 3. Future of the system (health insurance plan)	1. Invite the school physician and/or school nurse to discuss the basic facts about health care, including the problems. 2. Have one or two students investigate community facilities for emergency medical care. 3. Have several students report on the purpose, function, and organization of the Department of Health, Education and Welfare. 4. Have students review reports and newspaper and magazine articles concerning the problems of the medical care system. Discuss ways of improving the system. 5. Discuss the cost of medical care for the family (insurance, hospitalization, out-patient care, doctor's visits, etc.). 6. Have the students investigate possibilities for volunteer service in hospitals.	*Books* Byrd, Oliver E., *et al.* *Health - Today and Tomorrow.* Williams, Dorothea M. *Health Science (1).* *Films* *Dialogue with Life.* Health Insurance Institute, Modern Talking Picture Service. *What Is Medicare?* Social Security Administration.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	7. Have a few students interview hospital personnel (doctor, administrator, social worker) in order to understand problems from their point of view. 8. To help the students understand the scope of the medical care system, have them study the information available regarding Medicare, Medicaid, and the proposed Health Insurance Plan. 9. Have the students seek information and report on legislation affecting the health of individuals and communities on the local and state levels.	
A knowledge and understanding of the health problems of people around the world will improve the health status of future generations. 1. Personal hygiene 2. Nutrition 3. Diseases 4. Disasters 5. Others	1. Divide the class into small groups, and have each group do research on the health problems of a particular country in the World Health Organization. 2. Have the students look for articles and pictures on the World Health Organization and discuss its purpose and work. 3. Compare or contrast methods of solving similar health problems in different countries.	*Books* Diehl, Harold S. *Health and Safety for You.* Irwin, Leslie W., *et al. Patterns for Living.* Jones, Evelyn G., *et al. Living in Safety and Health.* *Films* *Physician to the World.* Care. *Project to the World.* Excello. *Periodicals* *American Journal of Public Health.* American Public Health Association. *This Week in Public Health.* Massachusetts Department of Public Health. *World Health.* World Health Organization. *Transparencies* *Forces Affecting Community Health Problems.* 3 M Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Explorations in space have contributed to improving health.	1. Have the students read the latest information on the suit designed to keep Apollo astronauts comfortable and protected. 2. Discuss the reasons for the period of quarantine required of the astronauts upon their return to earth. 3. Discuss the preparation of foods for space travel.	*Books* Bergwin, Clyde R., and Coleman, William T. *Animal Astronauts.* Caidin, Martin, and Caidin, Grace. *Aviation and Space Medicine.* Hanrahan, J.S., and Busmell, D. *Space Biology.* *Filmstrips* *Conditions in Space.* The Jam Handy Organization. *Man's Preparation for Space Travel.* The Jam Handy Organization. *Space Flight II - Human Problems.* McGraw-Hill Book Company.

Area III CONSUMER AND ENVIRONMENTAL HEALTH

Field of Study ECOLOGY (Junior High)

Objectives

To help the student to:

1. Understand that ecology is a living, personal field of study.
2. Appreciate the interrelationship of all living things.
3. Understand that man's environment and his relationship to it are important to his health.
4. Discover his role in contributing to the improvement of his environment.

ECOLOGY (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Air pollution is now recognized as a dangerous health hazard. 1. Contributes to the development of diseases a. Lung cancer b. Emphysema 2. Increases the severity of existing diseases a. Asthma b. Bronchial diseases c. Other illnesses	1. Discuss the various causes of air pollution in the local environment. 2. Discuss the noticeable effects of air pollution on the body (burning eyes, irritation of the nose and throat, difficulty in breathing). 3. Discuss the fact that the smoker pollutes the air and creates an undesirable environment for the non-smoker. 4. Have the students examine used cigarette filters and discuss their findings. 5. Discuss the local and state regulations controlling the internal combustion engine, the burning of leaves and trash, and the use of incinerators. 6. Have a few students do research and report on the development of the electric car. 7. Ask the local health department for used filters from air monitoring stations. Examine the filters and discuss the possible sources of pollution. 8. Have the students identify buildings that show effects of air pollution. Discuss the cost involved in counteracting the problem. 9. Invite representatives from industrial plants to discuss air pollution problems and what can be done to cope with the problems.	*Books* Battan, Louis J. *The Unclean Sky.* Byrd, Oliver E., *et al. Health (7-8).* Lewis, Howard R. *With Every Breath You Take.* Local Tuberculosis and Respiratory Disease Associations. *Air Pollution Primer.* *Films* *Air.* Massachusetts Department of Education. *Problems of Conservation: Air.* Encyclopaedia Britannica Educational Corp. *Filmstrip* *Air Pollution: The Trash Exlposion.* Massachusetts Petroleum Council. *Pamphlets* "Air Pollution: The Facts." Local Tuberculosis and Respiratory Disease Association. "Air Pollution and Respiratory Disease." United States Department of Health, Education and Welfare. "A Primer on Air Pollution." Mobile Oil Corporation. "The Effects of Air Pollution." United States Department of Health, Education and Welfare. "The Federal Air Pollution Program." United States Department of Health, Education and Welfare. "Needed: Clean Air." Channing L. Bete Company. "No Laughing Matter." United States Department of Health, Education and Welfare.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		"Take Three Giant Steps to Clean Air." United States Department of Health, Education and Welfare.
Polluted water is detrimental to the health of all living things. 1. Pathogenic organisms 2. Chemical agents 3. Radioactive wastes (thermal pollution) 4. Industrial wastes 5. Human wastes	1. Have the students do research on the pollution of the Potomac River and compare it with the pollution of a river or body of water in the local areas. 2. Have the students explore the relationship between the pollution of local waters and the threat to the health of individuals in the community. 3. Invite a scientist who is knowledgeable about radiation control to discuss radiation, fallout, and cosmic rays. 4. Have the students arrange a bulletin board using current information on water pollution at the local and state level. 5. Have the students visit a body of water or stream in the local area. Arrange to have a representative from the local water department test the water and discuss the contamination of water from human or animal wastes. 6. Discuss the problems involved in tracing the origin of polluted water.	*Books* Byrd, Oliver E., *et al. Health (8).* Graham, Frank J. *Disaster by Default: Politics and Water Pollution.* Halacy, D.S. *The Water Crisis.* Lewis, Alfred. *This Thirsty World.* *Films* *The Choice Is Yours.* Audio-Visual Explorations. *Man's Problem.* Encyclopaedia Britannica Educational Corp. *Pamphlets* "Keep It Clean." Bethlehem Steel Corporation. "Needed: Clean Water." Channing L. Bete Company.
Noise pollution can be controlled. *Noise affects the body.* 1. Creates feelings of irritation, fatigue, and tension 2. Increases blood pressure 3. Contributes to arteriosclerosis 4. Causes temporary loss of hearing	1. Have the students do some research on the recent medical theory that noise constitutes a health menance. 2. Have the students identify the various sounds which are uncomfortable to the human ear and discuss how the sounds can be controlled. 3. Have interested students explore recent inventions used to control noise from equipment	*Books* Byrd, Oliver E., *et al. Health (8).* Miller, Benjamin F., *et al. Investigating Your Health.* *Film* *Open Spaces.* Communico, Inc.

442

Concepts and Primary Concerns	Sample Learning Experiences	Resources
5. Causes permanent loss of hearing	such as pneumatic drills, pile drivers.	
	4. Have the school nurse explain the audiometer test and its use in measuring hearing loss.	
	5. Discuss how each person can help to alleviate excessive noise in the environment.	
	6. Have the students set up a situation in the classroom which creates distractions during a quiet assignment. At the completion of the assignment, discuss the effect of noise on the quality of work, concentration, and tension level.	
	7. Plan to administer an audiometer test before and after students are exposed to loud music in a small area for a planned period of time.	
	8. Have the students read articles in newspapers and periodicals on the controversy of the new supersonic transport and plan a debate on the effects of the transport on the environment.	
Overcrowding causes physical and emotional stress.	1. Discuss how overpopulation can be a threat to optimum health.	*Book*
Increased problems may result in: 1. Heart disease 2. Cancer	2. Discuss the terms *megalopolis* and *population growth.* Relate the discussion to changes in population taking place in Massachusetts.	Irwin, Leslie W., *et al. Choosing Your Goals.*
3. Respiratory disorders 4. Mental illness	3. Invite an architect to discuss healthful concepts of living as they relate to city planning.	
	4. Discuss the following statement: New health problems have been created for people in both the cities and countryside through human misuse of the natural environment.	
	5. Have the students plan a work project to clean up undesirable litter in the vicinity of the school. Expand the project to the community by involving a committee of students, faculty, parents, and others.	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Leisure-time activities may create environmental problems in recreational areas.	1. Have a committee explore the boating industry and the changes taking place that affect the health of individuals in recreational areas. 2. Discuss how boating activities can be utilized and still minimize the environmental health problems (canoeing and sailing rather than using motor boats). 3. Discuss the increased environmental problems created by motor boats. Have the students visit a marina in their own community and study the launching areas, the docking facilities, and boating regulations. 4. Discuss the importance of purifying water when traveling in the country on a camping trip.	*Books* United States Department of Health, Education and Welfare. *Ecotactics: The Sierra Club Handbook for Environment Activists.* United States Department of Health, Education and Welfare. *Environmental Health Practice in Recreational Areas.*
Every person has a responsibility to assist in the environmental pollution crisis. 1. Avoids purchasing products that pollute the environment 2. Avoids using insecticides and pesticides which are toxic 3. Avoids wasting water, gas, and electricity	1. Have the students list ways in which their families are contributing to the pollution of the environment. 2. Have the students plan a cooperative activity with the local beverage retailers in setting up redemption centers for the return of throw away bottles and glass jars. 3. Have the students create posters with environmental health messages. Arrange to display the posters at key locations throughout the community. 4. Have the students take photographs showing local situations polluting the environment. Arrange to have the pictures displayed at the city hall or town offices.	*Books* Carson, Rachel. *Silent Spring.* Commoner, Barry. *Science and Survival.* Council on Environmental Quality. *Environmental Quality.* Ehrlich, Paul R., and Ehrlich, Annett. *Population, Resources, Environment.* Farb, Peter. *Ecology.* Stewart, George R. *Not So Rich As You Think.* Udall, Stewart L. *The Quiet Crisis.*
Public health laws provide protection for the health of the citizens. Legislation essential for:	1. Have the students look up local laws relating to home plumbing, sewage restrictions, and public rest rooms. Then invite a local health	*Pamphlets* "The Air Quality Act of 1967." United States Department of Health, Education and Welfare.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
1. Home plumbing 2. Sewage 3. Public rest rooms 4. Radiation controls 5. Use of pesticides 6. Waste disposal	officer to discuss the regulations and any pending regulations. 2. Have the students look up the Air Quality Act of 1967 and identify how their own community can benefit from it.	"Clean Air Act of 1970." United States Department of Health, Education and Welfare.

Area III CONSUMER AND ENVIRONMENTAL HEALTH

Field of Study **HEALTH CAREERS** (Junior High)

Objectives

To help the student to:

1. Become knowledgeable concerning opportunities open to him in the health-related disciplines.
2. Realize the variety of skills and talents utilized by the health-related disciplines.

HEALTH CAREERS (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The health field is a broad one and requires a variety of people with specialized talents.	1. Discuss the team approach to the delivery of health services. 2. Discuss the opportunities available for working with many people in health related occupations. 3. Discuss the opportunities available for part time work in the health field. 4. Discuss the opportunities for research in the health related fields. 5. Discuss the variety of opportunities in the health related fields. 6. Discuss the machines used in the health field.	*Books* Bender, George A., and Thom, Robert A. *Great Moments in Pharmacy.* Manpower Administration, United States Department of Labor. *Health Careers Guidebook.* Massachusetts Medical Society Woman's Auxiliary. *Horizons Unlimited.* *Film* *Horizons Unlimited.* Massachusetts Medical Society Woman's Auxiliary. *Health Careers Mobile.*
The health field offers the individual many opportunities.	1. Discuss the opportunities for personal and financial rewards in health careers. 2. Discuss the opportunities for advancement in the health field. 3. Discuss the challenges within the health field.	*Books* Byrd, Oliver E., *et al. Health-Today and Tomorrow.* Lent, Henry. *Your Place in America's Space Program.* Mahoney, Tom. *The Merchants of Life.* Whaley, Russell F., *et al. Basic Health Science (F).*
The health field requires many talents.	1. Discuss the role of each of the following people in the functioning of a hospital: (1) Dietician. (2) Researcher. (3) Librarian. (4) Pharmacist. (5) Social worker. (6) Radiological technologist. (7) Hospital engineer. (8) Clinical and maintenance personnel. (9) Doctor. (10)Nurse.	*Books* Colman, Hila. *A Career in Medical Research.* Dodge, Bertha S. *Hands That Help: Careers for Medical Workers.* Fabricant, Noah D. *Doctors and Patients.* Hume, Ruth F. *Great Men of Medicine.* Hume, Ruth F. *Great Women of Medicine.* Knoedler, Evelyn L. *The Nurse Assistant.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	(11)Dentist. (12)Dental hygienist.	*Transparencies* *Areas of Specialization in Health.* 3M Company.
	2. Discuss the variety of interrelated services required by health agencies.	
	3. Discuss the role of the individual within the process described below: Community Health provides certain local services and also is in a position to give leadership in promoting cooperation by individual citizens and among the community's varying health partners.	
	4. Discuss the responsibilities of local community health services to do the following: (1) Locate cases of chronic disease. (2) Strengthen medical care for the chronically ill. (3) Work in the area of environmental health. (4) Locate and control epidemic disease.	
	5. Discuss the role of personnel in voluntary health agencies. Have a member of a voluntary agency speak to the class.	
	6. Discuss the role of personnel in industrial health services.	
	7. Discuss the role of personnel in the school health program.	
	8. Discuss the various other fields: mental health (psychiatry-community drop in centers), rehabilitation, research, family welfare, social work.	
	9. Discuss opportunities for health personnel within business and industry.	
	10. Ask students to investigate the tasks performed by different individuals in health occupations.	
	11. Have a student interview a doctor or health professional of interest to him.	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Selecting a career is a step-by-step procedure.	1. Discuss the relationship of interest in school to some health-related career. (Interest in art may lead to a career in medical illustration or occupational therapy. Interest in foreign languages may lead to a career of medical librarian or translator of scientific journals.) 2. Have each student evaluate himself in terms of a selected health career. 3. Have each student evaluate himself in terms of: (1) Ability to work under pressure. (2) Patience and/or compassion. (3) Ability to handle stress and strain. (4) Behavior and appearance. (5) Accomplishment. 4. Have the students evaluate the cost, scholarships available, and education needed to pursue different fields.	*Book* United States Department of Labor. *Occupations Outlook Handbook.* *Films* *Choosing Your Occupation.* Coronet Films. *Health Careers.* Wilding Productions. *Planning Your Career.* Encyclopaedia Britannica Educational Corp. *Filmstrip* *Careers in Health.* Popular Science Audio-Visuals, Inc. *Pamphlets* "Opportunities Unlimited." Indiana Health Careers, Inc. "What Kind of Career Could I Have in a Medical Laboratory?" Registry of Medical Technologists.

Area IV **SAFE LIVING**

Field of Study **FIRST AID* AND EMERGENCY PROCEDURES** (Junior High)

Objectives

To help the student to:

1. Acquire the knowledge and skills of good first-aid techniques.
2. Appreciate the importance of effective first-aid procedures in reducing the number of deaths and degree of disability resulting from accidents.
3. Assume responsibility for assisting others in emergency situations.
4. Realize the importance of community preparedness for disasters and emergencies.

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* It is recommended that the *Basic First Aid Course* be made available to all students at the middle grade or junior high level. The program may be obtained through the Local Red Cross Chapter.

FIRST AID AND EMERGENCY PROCEDURES (Junior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Hazards increase with mobility, independence, and growth. *The social and emotional aspects of traumatic injuries affect members of the family as well as the injured person.*	1. Discuss the hazards that are present at various stages of growth (infancy, pre-school, etc.). 2. Discuss and dramatize some of the hazardous situations the students have experienced. 3. Have a few students tell about serious emergencies that occurred in their childhood. 4. Discuss the serious effects the incidents described above had on other members of the family. 5. Have a committee explore the cost of an imaginary emergency for a family (physician, ambulance, mechanical devices used, hospital).	
Emergencies requiring immediate first aid include severe bleeding, asphyxia, poisoning, and shock conditions. 1. Bleeding a. Minor cuts and scratches b. Major arteries and veins c. Internal 2. Suffocation and heart stoppage (drowning, electric shock, or other accident) 3. Poisons (toxic substances absorbed through mouth, lungs, skin, or injection) 4. Shock (present in all serious injuries)	1. Discuss why the control of bleeding is the first responsibility of the first-aider. 2. Have the students identify the steps to be taken in the event of excessive bleeding. 3. Demonstrate the correct use of the tourniquet. Stress the importance of using the tourniquet only as a last resort. 4. Have the students identify what happens when a person appears to have suffered from asphyxia, or suffocation. 5. Describe several emergency situations that may occur in the water while swimming or boating. Have the students analyze each situation and decide on proper first-aid procedures. 6. Have the various methods of artificial respiration demonstrated. Permit all the students to practice the methods and encourage skill development in performing the various techniques. (Use a mannequin for mouth-to-mouth resuscitation practice.)	*Books* American National Red Cross. *Life Saving and Water Safety.* Diehl, Harold S., *et al. Health and Safety for You.* Irwin, Leslie W., *et al. Foundations for Fitness.* Miller, Benjamin F. *Investigating Your Health.* Roth, Arthur. *Teen-Age Years.* Potter, William H. *You and Your Doctor.* *Filmstrip* *Bleeding and Shock and Wounds.* McGraw-Hill Book Company. *Pamphlet* First-Aid Treatment for Poisoning." American Academy of Pediatrics.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	7. Have a nurse discuss the "closed chest heart massage" technique as a procedure which may save a human life. 8. Have a student report on the importance of treating for shock in most emergencies. 9. Discuss the various ways poisons enter the body and how these affect the body internally and externally. 10. Have a committee do research and report on the common poisons, the danger of such poisons, and the first-aid procedures to be followed in an emergency.	*Slides* *Accidental Poisoning in the Home.* American Pharmaceutical Association.
Many emergencies result from extremes in temperature. 1. Burns a. Electrical b. Chemical c. Thermal d. Overexposure to the sun 2. Heat exhaustion 3. Sunstroke 4. Frostbite	1. Discuss the effects of extreme changes of temperature on the body. 2. Have the students identify the types of burns which can be injurious to the tissue (extreme temperatures, electricity, radioactive substances, chemicals). 3. Discuss the precautions the first-aider should take in treating electrical burns. 4. Invite a representative from the local electric company to discuss the preventive program the company offers its employees and the emergency steps taken if a person receives an injury from electric wiring. 5. Have the students identify the classification of burns (first, second, and third degree). 6. Discuss the chemicals causing burns (acids, alkalies, corrosives). 7. Have the students list the common household chemicals having the potential to cause burns. 8. Show samples of some common household	*Books* Byrd, Oliver E., *et al. Health (8).* American National Red Cross. *First-Aid Textbook for Juniors.* Fait, Hollis F. *Health and Fitness for Modern Living.* *Pamphlets* "First-Aid Manual." American Medical Association. "When the Unexpected Happens." John Hancock Life Insurance Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	chemicals (lye, caustic soda). Discuss the first-aid procedures on the labels.	
	9. Discuss acceptable first-aid procedures for various chemical burns which may occur in the home.	
	10. Have the class define thermal burns and discuss the causes and first-aid procedures in treating them.	
	11. Discuss the hazards of overexposure to the sun or sunlamp. Identify the best procedure to follow when a person is suffering from a burn from the sun or a sunlamp.	
	12. Invite a nurse to discuss the medical treatment of burns in the hospital and the importance of good first aid in assisting the person who has been burned.	
	13. Discuss the effects of extreme heat on the heat regulation mechanisms of the body. Relate the effects on the physiology of the skin tissue and circulatory system.	
	14. Have the students identify the symptoms and first-aid treatment of heat stroke.	
	15. Stress the seriousness of heat exhaustion and heat stroke and have the students identify the differences in the symptoms and treatment.	
	16. Discuss possible situations where frostbite may occur and the best procedures to prevent damage to the skin.	
A trained first-aider should be able to handle most common emergencies occurring in daily life. 1. Removal of foreign substances from the eye, ear, nose	1. Demonstrate the proper technique for removing foreign objects from the eye, ear, and nose. Stress the importance of seeking the services of a physician in most instances rather than attempting to remove objects that cannot be easily	*Books* Byrd, Oliver E., *et al. Health - Today and Tomorrow.* Gmur, Ben C. *Making Health Decisions.* Henderson, John. *Emergency Medical Guide.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
2. Epileptic seizures 3. Strains 4. Sprains 5. Simple fractures 6. Compound fractures 7. Dislocations	removed. 2. Discuss the assistance a first-aider may provide to a person experiencing an epileptic seizure. 3. Have the students distinguish the difference between a *sprain* and a *strain* and identify good first-aid procedures in treating each problem. 4. Have the students role play a situation in which a student is baby sitting and a sudden emergency occurs.	Rossman, I.J., and Schwartz, Doris R. *The Family of Home Nursing and Medical Care.* Yoho, Robert O. *Health for Today.* *Film* *Emergency 77.* Metropolitan Life Insurance Company. *Pamphlet* "Sitting Safely." Metropolitan Life Insurance Company.
Development of skills and judgment is necessary to deal effectively with unexpected situations. 1. Applying splints 2. Caring for wounds 3. Transporting the injured	1. Have the students practice putting on bandages and improvising with various materials in applying splints. 2. Have the students practice various ways of moving an injured person. 3. Describe various emergencies and have the students write down the sequential steps the first-aider should follow in assisting in the emergency. 4. Have several students role play an emergency situation involving a serious injury.	*Books* American National Red Cross. *First-Aid Textbook for Juniors.* Belilios, Arthur D., *et al. Handbook of First Aid and Bandaging.*
In the event of an emergency, what is NOT done for the victim is frequently as important as what IS done.	1. Have the students identify some important "don'ts" to remember in an emergency and have a committee prepare a list for distribution to the class. Some suggestions follow: (1) Don't rub frostbitten area with snow. (2) Don't use butter, lard, or other greasy ointment on a burn. (3) Don't move an injured person without examining for fractures.	*Books* Bolton, William. *What to Do Until the Doctor Comes.* Henderson, John. *Emergency Medical Guide.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The community makes provision for civil disasters and emergencies. 1. Floods and hurricanes 2. Tornadoes 3. Major fires 4. Transportation accidents	1. Have the students identify the roles of the Red Cross and Office of Civil Defense in aiding disaster victims. 2. Have a few interested students obtain information on the contribution the National Guard makes at the time of a disaster. 3. Set up committees to identify the disaster plan of each of the following: a. The community. b. The school. c. The local hospital. 4. Ask each student to write a paper on his responsibility at the time of a disaster in his community.	*Books* Brennan, William T., and Ludwig, Donald T. *Guide to Problems and Practices in First Aid and Civil Defense.* Bry, Benjamin, and Francis, Annette. *In Case of Emergency.* LaCour, Art. *Survival Is Up to You.* Miller, Benjamin F., *et al. Investigating Your Health.*

SENIOR HIGH

Area I PHYSICAL HEALTH (Senior High)

Field of Study BODY STRUCTURE AND FUNCTION*

Objectives

To help the student to:

1. Understand the physiological aspects of growth and maturation.
2. Understand that the physical, mental, emotional, and social aspects of growth and development are interrelated.
3. Appreciate the uniqueness of the body and the intricacies of its functions.

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* If the school offers a biology course for every student, less emphasis may be placed on body structure.

BODY STRUCTURE AND FUNCTION (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The microscopic units of body structure carrying on all life's vital functions are the cells.	1. Have the students review the structure of the cell. Then discuss how cells are built and their functions. 2. Have the students do research on the activity of the cell and its needs in order to survive. 3. Discuss cell metabolism as nature's way of keeping the living substance in a cell active and vigorous. 4. Have a student do research and report on the groups of body tissues.	*Books* Butler, J.A. *The Life of the Cell.* Hurry, Stephen W. *The Microstructure of Cells.* Lawrence, Thomas Gordon. *Your Health and Safety.* Swanson, Carl P. *The Cell.* *Chart* *Cell Structure and Tissues.* George F. Cram Company, Inc. *Model* *Cell.* George F. Cram Company, Inc.
Late adolescence is a transitional period for the completion of physical growth. Transitional aspects 1. Puberty 2. Adolescence 3. Maturity	1. Have the students identify the life span of an individual and the proportion of man's life required to reach maturity. 2. Discuss the meaning of puberty and review the physical changes that take place. 3. Have the students identify the adolescent phase of the growth cycle. 4. Have the students develop a list of factors which may be considered criteria for evidence of maturity. 5. Discuss the relationship between legal age and maturity.	*Books* Engle, T.L. *Phsychology.* Horrobin, David F. *The Communication System of the Body.* Lawrence, Thomas Gordon. *Your Health and Safety.* Meredith, Florence L. *Health and Fitness.*
Human beings function as psychophysical units.	1. Have the students do research on the interrelatedness of the mind and body. 2. Discuss the fact that physical disorders can lead to depression, irritability, or despondency. 3. Discuss the fact that physical disorders may	*Books* Diehl, Harold S., *et al. Health and Safety for You.* Jones, Kenneth, *et al. Health Science.* Meredith, Florence L. *Health and Fitness.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	lead to headaches, ulcers, rashes, deafness, paralysis, or high blood pressure. 4. Discuss the effects of persistent emotional tensions on physical and mental well being. 5. Have the students define the term *psychosomatic.* Then discuss the mind-body relationship of organic illnesses which likely are the result of emotional tensions. 6. Have the students discuss their emotional reactions under different stress situations such as a misunderstanding, a family disagreement, or taking a test.	Otto, James H., *et al. Modern Health.*
Personality development reflects the interrelationship between the phases of growth and development. 1. Physical appearance a. Body proportion and muscular development b. Self-image 2. Body types (somatotypes) a. Endomorph b. Mesomorph c. Ectomorph	1. Discuss the way people use their senses in forming impressions of their peers. 2. Have each student rate himself on personal appearance as he thinks others see him and analyze the list for self-improvement. 3. Have the students use the heights and weights of the students in the class to compare height and weight differences during adolescence. 4. Discuss body type variations and identify some of the reasons for the differences. Then identify and classify the somatotypes in the class. 5. Discuss the physiological aspects of maturation (change of pulse, change of heart size, respiratory volume, food requirements). 6. Discuss the importance of accepting one's body build and how to modify its appearance if desired.	*Books* Diehl, Harold S., *et al. Health and Safety for You.* Lawrence, Thomas Gordon. *Your Health and Safety.* Meredith, Florence, *et al. Health and Fitness.*
The interrelatedness of the body systems permits the individual to adapt to and survive the pressures of living.	1. Have the students review the anatomical structure of the human body and the different body systems.	*Books* Best, C.H., and Taylor, N.B. *The Human Body.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	2. Have the students do research and report on how the blood affects the various body systems, the glands, and the cells. 3. Have the students do research and report on the many ways the nervous system affects the circulatory and respiratory systems. 4. Have the students identify the interrelatedness of the digestive system and the muscular and skeletal systems. 5. Discuss how the various systems provide balances in the body (internal thermostat, the body's cooling system, salt and water balance, sugar balance).	Horrobin, David F. *The Communication System of the Body.* Lawrence, Thomas G. *Your Health and Safety.* Otto, James H., *et al. Modern Health.* Riedman, S.R. *Your Blood and You.* Sprowl, E. *The Science Book of the Human Body.* *Chart* *Body Systems.* George F. Cram Company, Inc. *Film-Loops* *Circulation - The Flow of Blood.* Encyclopaedia Britannica Educational Corp. *The Heart in Action.* Encyclopaedia Britannica Educational Corp. *Films* *Circulation of the Blood.* Local Heart Association *The Human Body: Circulatory System.* Local Heart Association. *Work of the Heart.* Local Heart Association. *Filmstrip* *How the Nervous System Works.* McGraw-Hill Book Company. *Model* *See Thru Thin Man.* George F. Cram Company, Inc.
Many bodily functions are affected by the endocrine glands during the period of growth and maturation.	1. Have the students review the various glands of the endocrine system. 2. Discuss the regulatory function of the endo-	*Books* Best, C.H., and Taylor, N.B. *The Human Body.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	crine glands. Identify the significance of homeostasis to normal functioning of the body. 3. Have the students do research on the significance of the endocrine glands on the physical and emotional functions of the body. 4. Discuss what is meant by the dynamic balance of the endocrine system. 5. Have the students do research and report on the advances taking place in endocrinology.	Horrobin, David F. *The Communication System of the Body.* Lawrence, Thomas G. *Your Health and Safety.* *Films* *Endocrine Glands.* Encyclopaedia Britannica Educational Corp. *Endocrine Glands - How They Affect You.* McGraw-Hill Book Company. *Filmstrip* *The Endocrine System.* McGraw-Hill Book Company.
An understanding of the development and physiological differences between the two sexes is beneficial to the social and emotional growth of the individual.	1. Have the students review the parts and functions of the reproductive systems using appropriate films or transparencies. 2. Discuss the fact that the maturational changes which occur during puberty provide for the continuation of human life. 3. Present a graphic summary of the female menstrual cycle. Discuss menstruation and maturation. 4. Discuss the cells in the reproductive organs and the influence of the hormones of the reproductive system on the body. 5. Discuss the importance of wholeome attitudes toward the growth and development of the body.	*Books* Best, Charles H., and Taylor, Norman B. *The Living Body.* Miller, Benjamin F., and Goode, Ruth, *Man and His Body.* Otto, James H. *Modern Health.* *Charts* *Female Genito-Urinary Organs.* A.J. Nystrom Co. *Male Genito-Urinary Organs.* A.J. Nystrom Co. *Life Cycle Chart.* American Social Health Association. *Films* *Human Reproduction.* McGraw-Hill Book Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		Your Body During Adolescence. McGraw-Hill Book Company. *Filmstrips* *The Female Reproductive System.* McGraw-Hill Book Company. *The Male Reproductive System.* McGraw-Hill Book Company. *Model* *Reproductive System.* Denoyer-Geppert. *Transparencies* *Female Reproductive System.* Clearvue. *Male Reproductive System.* Clearvue.
To function effectively, it is important for the individual to know his own hereditary limitations and potentialities.	1. Discuss the fact that heredity accounts for the innate potentialities of the individual. 2. Discuss the effects of heredity and environment on one's mental and emotional life. 3. Discuss the relationship of genes, molecules, and proteins. 4. Have the students do research on the latest information on DNA and RNA.	*Books* Bishop, Jerry, and Davis, Douglas M. *New Horizons in Medicine.* Clare, Jane. *The Stuff of Life.* Goldstein, Philip. *Genetics Is Easy.* Scheinfeld, Amram. *Your Heredity and Environment.* *Films* *Cell Biology: Mitosis and DNA.* Coronet Films. *DNA - Molecule of Heredity.* Encyclopaedia Britannica Educational Corp. *Family Development.* McGraw-Hill Book Company. *Genes and Chromosones.* McGraw-Hill Book Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		Heredity and Inheritance in Man. McGraw-Hill Book Company. *The Thread of Life.* Bell Telephone Company.
Understanding the body leads to increased admiration and respect for it.	1. Discuss the fact that the care of the body must be based on a knowledge and appreciation of how it functions. 2. Discuss some major decisions high school students must make in providing the best environment for their bodies. 3. Discuss the fact that each individual is responsible for the health and safety of other individuals with whom he comes in contact.	*Book* Diehl, Harold S., *et al. Health and Safety for You.*

Area I **PHYSICAL HEALTH**

Field of Study CLEANLINESS AND APPEARANCE (Senior High)

Objectives

To help the student to:

1. Understand the structure and function of the integumentary system.
2. Understand that cleanliness of the body and attention to one's appearance reflects one's own image.
3. Appreciate that the adolescent helps to set the pattern for younger children to emulate.
4. Reflect respect for his body through personal care and grooming.

CLEANLINESS AND APPEARANCE (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The skin reflects the state of one's health.	1. Have the students review the structure and main functions of the skin. 2. Discuss the skin, hair, and nails as indicators of health. 3. Have a student report on the interrelatedness of the nervous system and the skin. 4. Have a student report on the function of the sebaceous glands during adolescence. 5. Have a student do research and report on the findings of the American Cancer Society relating skin cancer to over exposure to the sun. 6. Have the students bring in advertisements of creams and other preparations used to cleanse the skin. Discuss the value of such items for the adolescent. 7. Invite a physician and/or dermatologist to discuss special skin problems such as acne, allergies, boils, warts, and moles. 8. Invite a specialist to discuss the hazards of using home remedies and popular treatments for skin problems. 9. Discuss skin problems such as impetigo, scabies, eczema, head lice, and cold sores and how to correct such conditions. 10. Discuss the relationship between diet and skin care. 11. Discuss the following saying: Beauty is only skin deep. 12. Discuss changes that can occur in the appearance of the skin due to poor diet or body malfunctions. 13. Invite a cosmetologist to discuss the use of make-up.	*Article* "Sunburn." *Scientific American.* July, 1968. *Books* Archer, Elsie. *Let's Fact It.* Bauer, W.W. *Today's Health Guide.* Galton, Francis. *Finger Prints.* Lawrence, Thomas G., *et al. Your Health and Safety.* Lubowe, I.I. *New Hope for Your Skin.* *Films* *Body Care and Grooming.* McGraw-Hill Book Company. *More Than Skin Deep.* Winthrop Laboratories. *Teen-aged? Have Acne?* Winthrop Laboratories. *Pamphlets* "Guide for a Good Grooming Program." Bristol-Meyers Company. "Something Can Be Done About Acne." Bristol-Meyers Company. "Sunlight and the Skin." Briston-Meyers Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	14. Discuss the special care the adolescent male should give to his skin.	
Grooming is a matter of personal preference and reflects individual personality.	1. Discuss the art of grooming and its significance in reflecting one's personality. 2. Invite a cosmetologist to discuss scalp care and hair styling. 3. Invite a clothing specialist to discuss points to consider in planning a wardrobe. 4. Discuss the use of electrolysis and depilatories for the removal of excess hair. 5. Have a student do research and report on the development of the nails and the need for their care. 6. Invite a member of the guidance department to discuss the importance of grooming when seeking employment. 7. Invite a representative from a large company to discuss the importance of grooming at the time of an interview for employment. 8. Discuss the following statement: Many things about a person are reflected in his personal appearance. 9. Discuss the fact that teen-agers set the pattern for younger children to follow. 10. Have the students do research and report on the amount of money Americans spend on cosmetics, toiletries, and other items related to grooming. 11. Discuss the importance of good dental health to one's appearance.	*Books* Lawrence, Thomas G., *et al.* *Your Health and Safety.* Seventeen Magazine. *Seventeen Magazine's Book of Fashion and Beauty.* Stabile, Toni. *Cosmetics: Trick or Treat.* *Pamphlets* "A Boy and His Physique." New England Dairy and Food Council. "Approaching Adulthood." American Medical Association. "Good Grooming Guide for Busy Guys." American Medical Association. "Hair Do's and Don'ts." Winthrop Laboratories.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
A balance of individuality and conformity is needed in society.	1. Discuss the pros and cons of various hair styles. 2. Discuss proper clothing for formal, semi-formal, and informal occasions. 3. Invite a clothing buyer from a local department store to discuss trends in fashions. 4. Discuss the importance of proper manners for living in today's society.	

Area I PHYSICAL HEALTH

Field of Study DENTAL HEALTH (Senior High)

Objectives

To help the student to:

1. Understand that good dental care will assist him in maintaining good health.
2. Appreciate the importance of seeking professional care in the prevention and correction of individual and family dental needs.
3. Assume responsibility for identifying and assisting in improving the dental needs of the community.

DENTAL HEALTH (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Dental health and general health are interdependent. Diseased teeth may: 1. Affect the various body systems 2. Create emotional problems for the teen-ager 3. Become a liability to the teen-ager socially 4. Become a liability in business relationships	1. Have a few interested students study historical facts related to dentistry and report their findings to the class. 2. Discuss the following statement: For every 100 inductees entering military service today, there are needed 20 dentures, 25 bridges, 80 extractions, and 450 fillings. 3. Have the students find out what happens to a person's appearance when the back teeth are missing.	*Article* "The Role of the Teacher in Dental Health Education." *Journal of School Health.* February, 1968. *Books* Kogan, Benjamin A. *Health.* Lawrence, Thomas G., *et al. Your Health and Safety.* Otto, James H., *et al. Modern Health.* *Films* *The Story of Dentistry.* American Dental Association. *Set the Stage for Dental Health.* American Dental Association. *Pamphlets* "Dental Health Facts for Teachers." American Dental Association. "Dental Health Teaching Outline." American Dental Association.
Susceptibility to tooth decay involves numerous factors. 1. Presence of tooth a. Genetic susceptibility b. Anatomy (1) Food packing (2) Cleaning difficulty 2. Presence of carbohydrates a. Only fermentable food stuff b. Plaque formation	1. Discuss the factors causing susceptibility to tooth decay. 2. Have a few students work with the school dentist and nurse in studying the dental work completed in the school program. 3. Discuss the contributing effects of diet fads to dental problems. 4. Have the students examine scrapings taken from their teeth under a microscope to observe the bacteria present.	*Books* Lauterstein, A.M., and Barber, T.R. *Teeth - Their Forms and Functions.* Muhler, Joseph C. *Be True to Your Teeth or They Will Be False to You.* Muhler, Joseph C. *Fifty-two Pearls and Their Environment.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
3. Presence of bacteria	5. Have the students conduct an experiment showing that both bacteria and carbohydrates are necessary in the production of tooth-damaging acids.	*Films* *Case of the Missing Tooth.* Massachusetts Department of Public Health. *Dentistry through the Ages of Man.* Massachusetts Department of Public Health. *Laurie Learns a Secret.* Massachusetts Department of Public Health. *Pamphlets* "X rays and Your Teeth." American Dental Association. "Food and Care for Dental Health." New England Dairy and Food Council. "The Teens and the Teeth." American Dental Association.
Dental neglect results in numerous problems. 1. Infections 2. Pain and discomfort 3. Loss of time from school and work 4. Periodontal disease a. Gingivitis b. Periodontitis (pyorrhea) 5. Expensive dental work 6. Neglect breeds further neglect 7. Cosmetic damage 8. Social problems	1. Discuss the problems that may arise when an individual neglects his dental needs. 2. Have the students evaluate their own toothbrushing practices by taking the disclosing water test. Have them try the test with younger children in their families and evaluate the results.	*Films* *First and Foremost.* Massachusetts Department of Public Health. *Matter of Choice.* Massachusetts Department of Public Health. *Putting It Straight.* American Dental Association.
Recognized procedures regarding prevention and treatment can substantially reduce oral health problems when put into practice. 1. Fluoridation of local water supply	1. Have the school dentist or the dental hygienist discuss preventive techniques for good oral hygiene. 2. Have the students discuss the electric tooth-	*Books* American Dental Association. *Teeth, Health, and Appearance.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
2. Fluoride tablets mixed in drinking water in the home 3. Topical application of fluoride 4. Diet 5. Proper oral hygiene 6. Dental checkups	brush and electric Water Pik with the school dentist and with their own dentist and evaluate the effectiveness of each. 3. Discuss the effects of an excessive amount of highly refined carbohydrates in the diet. 4. Have the students work in committees to read, discuss, and prepare reports on: (1) Background information on fluoridation. (2) Information from the Massachusetts Department of Public Health on fluoridation of public water supplies. (3) Fluoridation and the local community. (4) Topical applications of fluoride. 5. Have the students plan projects on dental health, 6. Discuss the value of cleaning the teeth with a brush as opposed to using just mouthwash. 7. Have the students plan a bulletin board showing ads and claims for dentifrices. They can evaluate the ads and claims and determine those that are most reliable.	Gmur, Ben C., *et al. Making Health Decisions.* Meredith, Florence L., *et al. Health and Fitness.* *Films* *Save Those Teeth.* American Dental Association. *Why Fluoridation?* American Dental Association. *Filmstrip* *Your Teeth and Their Care.* American Dental Association. *Pamphlets* "Dental Projects for High School Science Students." American Dental Association. "Fluoridation Facts: Answers to Criticisms of Fluoride." American Dental Association. "Your Dentist Recommends Fluoridation." American Dental Association.
Preventive dentistry involves the dentist, the parents, and the child. Positive action against: 1. Dental decay 2. Periodontal disease 3. Orthodontic defects	1. Discuss the importance of the three-pronged approach to good dental health: the parent, the child, and the dentist. 2. Discuss the time of life when the individual assumes responsibility to: (1) Examine his own teeth and gums to determine special problems needing attention. (2) Visit the dentist periodically. (3) Take action to prevent dental problems. 3. Discuss the responsibility of the mother at the time of pregnancy. 4. Have the students make a survey of the dentifrices used by their classmates. Have some of	*Article* "Some Psychological Aspects of Dental Practice: A Study of the Individual's Response to the Care of His Teeth." *Mental Hygiene.* October, 1963. *Books* Bauer, W.W. *Today's Health Guide.* Brotman, Robert H. *The Family Book of the Mouth.* Hein, Fred V., and Farnsworth, Dana L. *Living.* Muhler, Joseph C. *Fifty-two Pearls and Their Environment.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	the students report on the basis for their decisions to use a particular dentifrice. 5. Have the students investigate insurance plans for dental care. 6. Discuss how a family goes about obtaining the services of a dentist after moving into a new community.	*Films* *Set the Stage for Dental Health.* Massachusetts Department of Public Health. *Today Alice Is Three.* Massachusetts Department of Public Health. *Pamphlets* "Your Child's Teeth." American Dental Association. "Your Guide to Dental Health." American Dental Association. "Your Teeth, How to Save Them." American Dental Association. "How Teeth Grow." New England Dairy and Food Council. "Dental Prepayment." United States Department of Health, Education, and Welfare. "Prepaid Dental Care." United States Department of Health, Education, and Welfare.
Community action can improve the status of dental health.	1. Have the students plan and conduct a survey of the community to determine the facilities providing dental care. 2. Discuss how the students can contribute to a Dental Health Week in the community. Have a committee work with members of the local dental society in planning the week. 3. Invite a dentist to discuss fluoridation of the local drinking water and also the secondary methods for providing fluoride: (1) Fluoridated dentifrices. (2) Fluoride tablets. (3) Fluoride topical applications.	*Article* "Fluorides for Adults." *Time.* April 8, 1966. *Books* Dunning, James M. *Principles of Dental Public Health.* Stoll, Frances A. *Dental Health Education.* *Pamphlets* "Answers to Criticisms of Fluoridation." American Dental Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	4. Have the students consider the arguments for and against fluoridation.	"Dental Health Teaching Outline." American Dental Association. "Fluoridation Facts." American Dental Association. "Fluoride Helps Prevent Tooth Decay." American Dental Association. "Your Dentist Recommends Fluoridation." American Dental Association. "A Guide to Reading on Fluoridation." United States Department of Health, Education and Welfare, Public Health Service. *Film* *One in a Million.* Massachusetts Department of Public Health.

Area I PHYSICAL HEALTH

Field of Study DISEASES AND DISORDERS (Senior High)

Objectives

To help the student to:

1. Become aware of the communicable diseases and chronic and degenerative diseases and disorders that have plagued man for centuries.
2. Appreciate the importance of conserving the world's human resources.
3. Make intelligent decisions about preventing diseases and disorders.
4. Make intelligent decisions about protecting himself and others against diseases and disorders.

DISEASES AND DISORDERS (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
One of the greatest advances in medicine and public health has been in the control of infectious diseases. 1. Defenses against infection a. Skin b. Body secretions c. White blood cells d. Fever e. Antibodies f. Active immunity g. Passive immunity h. Discretion of immunity 2. Destruction of microorganisms a. Temperature b. Antiseptics c. Direct sunlight d. Ultraviolet light rays e. Acids and alkalies f. Salt g. Drugs	1. Have the students trace the paths through which microorganisms can enter the body. 2. Discuss the incubation periods for microorganisms and the significance of such periods. 3. Have the students find out how disease producing organisms such as the following damage body tissues: (1) Poliomyelitis (nerve tissue). (2) Tuberculosis (lung and other body tissue). (3) Syphilis (almost any body tissue). (4) Streptococcal infections (throat, kidney, heart, blood cells). (5) Trichinosis (muscle tissue). 4. Have a student do research and report on how active immunity is developed naturally and how it is attained artificially. 5. Have a student do research and report on the use of artificial passive immunization in the prevention and/or treatment of diphtheria, tetanus, and scarlet fever. 6. Discuss the problem of the possible spread of diseases at the time of a blood transfusion. 7. Have the students do research and report on the progress made in controlling communicable diseases. 8. Have a student do research and report on the use of chemotherapy in controlling disease.	*Books* Diehl, Harold S., *et al. Health and Safety for You.* Dubos, Rene, and Pines, Maya. *Health and Disease.* Fiennes, Richard. *Man, Nature and Disease.* Fox, John P., *et al. Epidemiology: Man and Disease.* Osborn, Barbara M., *et al. Foundations of Health Science.* *Charts* *Body Defenses.* George F. Cram Company, Inc. *Infectious Diseases.* George F. Cram Company, Inc. *Films* *Man's Battle Against Disease.* Eye Gate House, Inc. *Unconditional Surrender.* National Foundation - March of Dimes
The infectious disease process involves a series of events which can be controlled. 1. Organisms invading the body a. Bacteria b. Fungi	1. Have the students prepare tables, charts, and diagrams to illustrate the various ways pathogens are transmitted. 2. Have the student identify the source of infection and discuss the following statement: Man	*Books* Schneiders, Alexander A. *A Curriculum Guide on Venereal Diseases for Junior High School Teachers.*

Concepts and Primary Concerns

- c. Viruses
- d. Rickettsiae
- e. Protozoa
- f. Metazoa

2. Modes of transmission
    - a. Air borne
    - b. Waterborne
    - c. Food borne
    - d. Contact
        - (1) Direct
        - (2) Indirect
        - (3) Wounds
    - e. Insect borne
    - f. Animal borne

Sample Learning Experiences

himself is the most frequent reservoir of the infectious agents pathogenic for man.

3. Have the students identify the terms *communicable period, contamination,* and *contact* in relation to infections.
4. Have committees do research and report on modes of transmission of the various common diseases.
5. Organize committees to do research and report on the causes, frequency, and treatment of colds, pneumonia, asthma, hay fever, and emphysema.
6. Have a few students do research and report on the history of tuberculosis and the medical progress made in controlling the disease.
7. Have the school nurse or physician discuss the importance of early detection of tuberculosis and the methods of detecting the disease.
8. Discuss the state law requiring school personnel to have a periodic examination for tuberculosis.
9. Invite a health educator from the local Tuberculosis and Respiratory Disease Association to discuss the prevention of respiratory diseases.
10. Assign a student to report on diseases transmitted by animals and the extent of such diseases in the United States and other countries.
11. Have students do research and report on the reasons why venereal diseases rank as one of the major social problems in Massachusetts.
12. Discuss the state law requiring that venereal disease records be kept confidential. (Chapter III-Section 119).

Resources

Schwartz, William F. *Teacher's Handbook on Venereal Disease Education.*

Films

A Quarter Million Teenagers. Massachusetts Department of Public Health.

The Body Fights Bateria. McGraw-Hill Book Company.

Infectious Diseases and Man-Made Diseases. Coronet Films.

Infectious Diseases and Natural Body Defenses. Coronet Films.

Pamphlets

"Asthma - The Facts." Local Tuberculosis and Respiratory Disease Association.

"Asthma and You." Winthrop Laboratories.

"Common Cold - The Facts." Local Tuberculosis and Respiratory Disease Association.

"Emphysema - The Facts." Local Tuberculosis and Respiratory Disease Association.

"Emphysema and You." Winthrop Laboratories.

"Facts About Gonorrhea." Massachusetts Department of Public Health.

"T B Control - Prospects for Eradication." American Medical Association.

Transparencies

Understanding Venereal Disease. GAF Corporation.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	13. Discuss the Wasserman blood test. 14. Discuss the seriousness of serum and infectious hepatitis in Massachusetts. 15. Invite the school nurse to report on the extent of infectious mononucleosis as a problem among the teen-age population. Discuss measures for its prevention and control.	
Chronic diseases are a problem of young as well as older persons. 1. Circulatory system diseases 2. Cancer 3. Diabetes mellitus 4. Arthritis 5. Epilepsy	1. Discuss why combatting chronic diseases is a challenge to the medical profession today. 2. Discuss the terms *stroke, hypertension, coronary,* and *rheumatic heart disease.* 3. Have a student obtain data on congenital heart statistics on the leading chronic and degenerative diseases in the local area, State, and nation. 4. Have a student obtain data on congenital heart defects and discuss the significance of such defects in retarding growth and limiting the activities of the individual. 5. Discuss the significance and relationship of health habits to problems of the cardiovascular system. 6. Have the students bring in newspaper articles and periodicals identifying new advances in heart and cardiovascular surgery and in mechanical devices. 7. Have a student visit a coronary care unit and report to the class. 8. Discuss the effects of syphilis, diphtheria, and tuberculosis on the cardiovascular system. 9. Have a student do research and report on the factors leading to hypertension and why preven-	*Books* Barry, Gerald. *Man's Fight Against Sickness and Want.* United States Department of Health, Education and Welfare. *Vital Statistics of the United States.* *Films* *Common Heart Disorders and Their Causes.* McGraw-Hill Book Company. *The Exceptional Child.* Epilepsy Society of Massachusetts. *Pamphlets* "Arthritis - The Basic Facts." Arthritis Foundation. "Epilepsy, The Teacher's Role." Epilepsy Society of Massachusetts. "Guard Against Heart Attacks." Local Heart Association. "High Blood Pressure." Local Heart Association. "Inside the Coronary Care Unit - A Guide for the Patient and His Family." Local Heart Association. "Rheumatic Fever and Rheumatic Heart Disease in Adults." Local Heart Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	tion is more desirable than treatment. 10. Have the students discuss the causes of epilepsy, the problems of the disorder, and the progress that has been made in assisting individuals who have the condition.	"Strokes - A Guide for the Family." Local Heart Association.
Each individual can assist in conquering cancer.	1. Discuss the growth of cancer cells. Then view the film *From One Cell.* 2. Have the students diagram the difference between normal cell growth and abnormal, irregular, and malignant cell growth. 3. Have the students define the term *carcinogens* and make a list of probable carcinogens present in man's environment. 4. Have the students do research and report on the different types of cancer such as carcinoma, sarcoma, leukemia. 5. Have the students identify the tissues of the body in which cancerous cells develop most frequently. 6. Discuss the following statement: It has been estimated that elimination of the cigarette habit would save approximately 36,000 lives each year. 7. Have the students do research on the various theories concerning the causes of cancer. 8. Have the students make posters listing the warning signals of cancer. 9. Discuss the importance of self-examination and early detection of cancer. 10. Assign special reports on research in cancer surgery, radiation therapy, and chemotherapy. 11. Discuss the work of the American Cancer Society.	*Films* *From One Cell.* American Cancer Society, Inc. *Horizons of Hope.* Local Cancer Society. *The Human Cell and the Cytotechnologist.* Local Cancer Society. *Man Alive.* Local Cancer Society. *Self-examination for Breast Cancer.* Local Cancer Society. *Traitor Within.* Local Cancer Society. *Filmstrip* *The Cancer Challenge to Youth.* American Cancer Society. *Pamphlets* "Cancer Facts for Men." Local Cancer Society. "Cancer Facts for Women." Local Cancer Society. "I Have a Secret Cure for Cancer." Local Cancer Society. "Science Against Cancer." Local Cancer Society. "Teaching About Cancer." Local Cancer Society. "Youth Looks at Cancer." Local Cancer Society. *Transparencies* *Human Endeavor to Prevent and Control Disease.* 3M Company.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	12. Have the students explore methods used by unscrupulous people to victimize those afflicted with cancer. 13. Discuss how each person can assist in conquering cancer.	
In spite of the progress made in the control of diabetes, the number of diabetics increases each year. 1. Symptoms a. Excessive appetite b. Weight loss c. Excessive thirst d. Increased urine 2. Treatment a. Diet b. Insulin	1. Have the students do research on diabetes as a major cause of illness today, including genetic and hereditary factors. 2. Discuss the means of detecting diabetes and why early detection is important: (1) Glucose tolerance test. (2) Urine test. 3. Invite a nurse or physician to discuss how diabetes is controlled. 4. Discuss the role if insulin in the body's utilization of food at the cell level. 5. Discuss the fact that overweight is frequently a factor in the occurrence of diabetes. 6. Discuss the fact that the diabetic who cares for himself properly may participate in sports and other activities.	*Books* Diehl, Harold S. *Health and Safety for You.* Otto, James H., *et al. Modern Health.* *Film* *Diabetes and You, Too.* American Diabetes Association. *Test Kit* *Test Kit for Diabetes.* Local Pharmaceutical Association.
Arthritis is considered to be the major crippling disease of the nation.	1. Discuss the implication of arthritis as a crippling disease rather than a fatal one. 2. Have the students do research on the various kinds of arthritic conditions and how they affect an individual's life. 3. Have a few students report on the research being done on arthritis. 4. Have the students do research on other disabling disorders.	

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	5. Have the students read about what is being done to rehabilitate disabled patients.	
The by-products of man's technical and medical advancements are social as well as professional problems.	1. Have the students bring in articles from current newspapers and periodicals on the stresses of industrialization and urbanization. 2. Discuss the effects of such pressures on the human organism. 3. Have a few students do research and report on some of the advances in medical research. 4. Discuss the effects of new medical techniques on life expectancy. 5. Discuss the fact that good health and a long life still elude the majority of humans born today. 6. Invite a specialist in geriatrics to discuss the community's responsibility in caring for the needs of the elderly.	*Books* Barry, Gerald. *Man's Fight Against Sickness and Want.* Cooley, Donald D. *Science Book of Modern Medicines.* Dubos, Rene and Pines, Maya. *Health and Disease.* *Films* *Man's Battle Against Disease.* Eye Gate House, Inc. *Your Protection Against Disease.* Eye Gate House, Inc. *Pamphlet* "Health Through the Ages." Metropolitan Life Insurance Company. *Transparencies* *Technology, Environment and Health.* 3M Company.
Health and medical advances have resulted in longer life.	1. Have the students chart and discuss the life expectancy of men and women today compared to that of 10, 20, and 50 years ago. 2. Have the students compare the life expectancy of men and women in the United States with that of men and women in other countries.	
The quality of life depends on man's understanding and accepting the responsibility for his own health and the health of others.	1. Discuss the term *quality of life.* 2. Discuss the responsibility each individual has	*Book* Dubos, Rene and Pines, Maya. *Health and Disease.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	for his own health and the health of others. 3. Discuss the importance of conserving the world's human resources.	*Transparencies* *Planning for Health.* 3M Company.
Travel into space creates new situations for scientists and for those in the medical profession.	1. Have the students read about the measures taken by space scientists and those in the medical profession in preparing men to avoid illness during space travel. 2. Have a few students do research and report on the reasons why astronauts are quarantined after they return to earth.	

Area I PHYSICAL HEALTH

Field of Study FITNESS AND BODY DYNAMICS (Senior High)

Objectives

To help the student to:

1. Acquire an understanding of fitness and its contribution to health.
2. Understand the factors in his environment that affect his fitness.
3. Assume responsibility for developing and maintaining his own level of fitness.

FITNESS AND BODY DYNAMICS (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
An individual achieves fitness only when he is aware of and respects the total being of man.	1. Discuss the fact that fitness leads to optimum health. 2. Discuss the fact that dental fitness has a direct influence upon optimum health. 3. Discuss the importance of sensory fitness. 4. Have the students identify cardiovascular fitness and relate the effects of wholesome exercise to the heart. 5. Discuss signs of good respiratory fitness. Identify how allergies affect respiratory fitness. 6. Have the students identify the possible relationship between emotions (anger, excitement, nervousness) and gastro-intestinal fitness. 7. Discuss the fact that improper eating habits can produce digestive problems. 8. Have the students identify problems in every day living that might be hazardous to an individual's psychological and emotional fitness. 9. Discuss the fact that regular exercise can help to slow down physical deterioration that accompanies aging.	*Books* Cureton, Thomas K. *Physical Fitness and Dynamic Health.* Mackey, Richard T. *Exercises, Rest and Relaxation.* Prudden, Bonnie. *Teenage Fitness.* Van Huss, Wayne, *et al. Physical Activity in Modern Living.* *Pamphlets* "Exercise and Fitness." American Association for Health, Physical Education and Recreation. "Physical Fitness." American Medical Association. "Seven Paths to Fitness." American Medical Association.
Physical exercise is the major contribution to physical fitness. Components of physical fitness tests: 1. Muscular strength 2. Muscular endurance 3. Muscular power 4. Cardiovascular endurance 5. Coordination 6. Flexibility 7. Balance, speed, agility	1. Discuss the importance of a good physical education program for total fitness. 2. Discuss the qualities indicating a physically fit person (slower pulse rate while working, slower rise in blood pressure while exercising, etc.). 3. Have the students evaluate their performance in physical fitness tests if they are tested in the physical education program. 4. Have a member of the physical education department discuss the components of the phy-	*Articles* "The Physiology of Exercise." *Scientific American.* May, 1965. "The Soft American." *Sports Illustrated.* December, 1960. *Books* Morehouse, Lawrence E., and Miller, Augustus T. *Physiology of Exercise.* Pierson, W.R. *Isometric Exercise.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	sical fitness tests. 5. Encourage a few students to do research and report on the importance the ancient Greeks placed on a healthy body. 6. Have a few students explore isometric exercises and demonstrate some of them.	President's Council on Physical Fitness. *Adult Physical Fitness.* Wallis, Earl L., and Lodan Gene A. *Figure Improvement and Body Conditioning through Exercise.* Wells, Katherine F. *Kinesiology.* *Films* *Posture and Exercise.* Encyclopaedia Britannica Educational Corp. *Exercise and Physical Fitness.* McGraw-Hill Book Company.
There are valid and invalid ways of evaluating fitness. **Acceptable procedures:** **1. Medical examinations** **a. Health history** **b. Laboratory tests** **c. Special measurements** **2. Psychological examinations** **3. Physical fitness tests**	1. Discuss the purpose of having a regular medical examination. 2. Discuss the fact that a patient's health history may be of value at the time of an emergency. 3. Invite a medical person to discuss various laboratory tests (blood test, Pap smear, Xrays, urinalysis) that aid in evaluating fitness. 4. Discuss the importance of body measurements such as temperature, blood pressure, and pulse in determining fitness. 5. Invite a physician to demonstrate and explain various ways of determining the degree of fitness. 6. Have the school psychologist relate psychological examinations to total fitness.	*Books* Bonder, J.A., and Shea, E.J. *Physical Fitness: Tests and Exercises.* Fleischman, Edwin A. *The Structure and Measurement of Physical Fitness.* Kusinitz, Ivan; Freedman, Morris; and Fine, Morton. *The Challange of Physical Fitness.* Lawrence, Thomas G. *Your Health and Safety.*
Adequate muscular activity is essential to meet the challenges of daily life.	1. Discuss the fact that physical exercise improves muscle strength which is basic to physical fitness.	*Books* Diehl, Harold S., *et al.* *Health and Safety for You.* Jokl, Ernst. *The Heart and Sport.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	2. Have a few students explore the relationship of repetition, overload, interval, practice schedule, and warm-up to the development of strength. 3. Have the students plan a program to develop the strength of the body. Discuss the relationship between strength and endurance. 4. Have the students invesitgate some of the causes of poor posture. 5. Discuss the importance and significance of good posture for the proper functioning of the various organs. 6. Have each student plan a personal exercise program to improve his own posture. 7. Have the students list a few occupations in which skill in a fundamental motion is necessary for success. 8. Discuss the value of warm-up exercises before engaging in strenuous activity.	Meredith, Florence, *et al.* *Health and Fitness.* Otto, James H., *et al.* *Modern Health.* *Film* *Your Muscles.* McGraw-Hill Book Company.
Environmental pressures influence our daily living. Pressures due to: 1. Pace of daily routine 2. Tensions 3. Sedentary living 4. Struggle for status 5. Automation	1. Have the students identify the term *stress* and some of the values and harmful effects of stress. 2. Discuss what life would be like without stress and why some stress is necessary. 3. Discuss the fact that tensions of daily life can affect one's optimum health. 4. Discuss how struggle for status may affect the total fitness of an individual.	*Books* Kilander, H.F. *Health for Modern Living.* Kraus, Hanns, and Kraus, Raab. *Hypokinetic Disease Produced by Lack of Exercise.* Lawrence, Thomas G. *Your Health and Safety.*
Keeping the body fit and functional requires an informed and careful individual.	1. Discuss the human body as a precision instrument capable of great achievement. Have the students associate sound health practices and disciplined living with physical fitness and body dynamics.	*Books* The Athletic Institute. *Exercise and Fitness.* The Athletic Institute, *Health and Fitness in the Modern World.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	2. Discuss the fallacies of various popular diets.	Cooper, Kenneth H. *Aerobics.*
	3. Discuss the importance of daily physical activity for people of all ages.	Cureton, Thomas K. *Physical Fitness and Dynamic Health.*
	4. Have the students react to the following statement: Americans do not respect physical fitness as they do financial success, power, and intellectual attainments.	Guild, Warren R. *How to Keep Fit.* Otto, James H., *et al. Modern Health.* Smith, Hope M., ed. *Introduction to Human Movement.*
	5. Invite a physician to discuss the harmful effects of obesity. Have the students identify fattening foods.	*Films*
	6. Have a few students study the aerobics exercise program and report their finding to the class.	*Focus on Fitness.* Eastman Kodak Company. *Obesity.* Encyclopaedia Britannica Educational Corp.
	7. Have a student report on hypokinetic disease.	
	8. Invite a therapist to discuss the progress that has been made in the rehabilitation of patients.	*Pamphlets* "A Boy and His Physique." New England Dairy and food Council.
	9. Discuss the importance of taking good care of the feet in order to avoid postural problems.	"A Girl and Her Figure." New England Dairy and Food Council.
		"They Ask Why." New England Dairy and Food Council.

Area I PHYSICAL HEALTH

Field of Study SENSORY PERCEPTION (Senior High)

Objectives

To help the student to:

1. Understand why he perceives the world the way he does.
2. Understand that the senses are vital to successful achievement in life.
3. Appreciate the need for proper care of the sensory organs.
4. Perceive fellow human beings more nearly as they are.

SENSORY PERCEPTION (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The manner in which one perceives is learned and can be changed. Factors causing change: 1. Crisis 2. Persuasion 3. Education (social, religious, political)	1. Have the students list subjective and objective factors that might modify perception. Once the list is agreed on, assign values to each factor (most influential in modifying perception to least influential). 2. Have the students give concrete examples from their own lives of how the various factors above have modified their perceptions of objects and persons. 3. Discuss the fact that perception is selective and reflects personality characteristics.	*Article* "Experiment in Perception." *Scientific American.* 1962. *Books* Becham, J., and Cohen, A.R. *Exploration of Cognitive Dissonance.* Janis, I.L., and Holland, C.I. eds. *Personality and Persuasibility.* *Periodical* *Psychology Today.*
Each person constitutes a significant part of every other person's environment. Accuracy of social perception depends upon: 1. First impressions 2. Context 3. Who and what are being judged (halo effect) 4. General ability of the perceiver	1. Discuss the term *halo effect.* 2. Show the film *The Eye of the Beholder* in its entirety and then again, stopping at appropriate places for specific discussions. 3. Discuss the fact that a person's reaction to others depends to a large extent on how he perceives and judges them.	*Book* Wertheimer, Michael, ed. *Confrontation (Psychology and the Problems of Today).* *Film* *The Eye of the Beholder.* Stuart Reynolds Productions. *Pamphlet* "The Eye of the Beholder: A Discussion Leader's Guide." Stuart Reynolds Publications.
The perceptive individual is capable of organizing and interpreting sensory data by combining them with the results of previous experiences. 1. Objective factors (organization, grouping, similarity, constancy, distortions) 2. Subjective factors (organization, grouping, similarity, constancy, distortions)	1. Show the students a film on perception to illustrate and clarify the concept with concrete examples. Have the students give examples from their own experiences. 2. Discuss the film and identify the objective and subjective factors influencing perception. 3. Have the students collect and display maga-	*Articles* "Early Concepts of the Senses and the Mind." *Scientific American.* May, 1964. *Books* Hersey, Gerald L., and Lugo, James O. *Living Psychology.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	zine illustrations that highlight those factors.	Kendler, Howard H. *Basic Psychology.* Otto, H.A., ed. *Exploration in Human Potentialities.* Rogers, C.R. *On Becoming a Person.* Sherrington, Charles. *The Integrating Action of the Nervous System.* *Films* *I Wonder Why.* Contemporary Films. *People Are Different and Alike.* Coronet Films. *Perception.* McGraw-Hill Book Company.
Of all the senses, none provides more opportunity for learning and pleasure than vision.	1. Have the students review the structure of the eye. 2. Using a model of the eye and the skull, discuss nature's way of protecting the eye. 3. Have various committees do research on the techniques essential for sight conservation. 4. Have the students identify normal vision. Arrange for a demonstration of the Massachusetts Vision Test. 5. Assign a few students to report on conditions of the eye which create myopia, hyperopia, presbyopia, and astigmatism. 6. Discuss the relationship of color perception to vocational planning. 7. Discuss the training and duties of professionals who deal with eye problems. Have different students interview an ophthalmologist, oculist, optometrist, and optician. 8. Have a few students seek information on the correlation between a person's emotions and his eyes.	*Article* "How Color Affects Your Life." *Today's Health.* September, 1962. *Books* Johns, Edward B. *Health for Effective Living.* Lawrence, Thomas G. *Your Health and Safety.* Mueller, Conrad G., and Rudolph, Mae. *Light and Vision.* Vail, Derrick. *The Truth About Your Eyes.* *Films* *Eyes: Their Structure and Their Care.* Coronet Films. *Sight for a Lifetime.* Massachusetts Society for the Prevention of Blindness. *Pamphlets* "Glaucoma." Massachusetts Society for the Prevention of Blindness.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	9. Discuss the popular practice of wearing sun glasses and the importance of having them prescribed and properly fitted by an eye specialist. 10. Discuss the latest regulations on safety lenses. 11. Have an interested student do research and report on the nation's leading cause of blindness among adults (glaucoma).	"Signs of Eye Trouble in Children." Massachusetts Society for the Prevention of Blindness. "Television and Your Eyes." Massachusetts Society for the Prevention of Blindness. "This Not This." Massachusetts Society for the Prevention of Blindness. "Why Safety Glasses." Massachusetts Society for the Prevention of Blindness. "Your Eyes: For a Lifetime of Sight." Massachusetts Society for the Prevention of Blindness. *Slides* *RX for Eye Safety.* Massachusetts Society for the Prevention of Blindness.
Hearing is fundamental to learning and to ease in communicating.	1. Have the students review the structure of the ear. 2. Discuss the fact that hearing is one of the most important senses for communicating. 3. Have the students list the ways hearing can be damaged (disease, pressure, sharp objects, concussion). 4. Have a demonstration of the hearing acuity test given in the schools. 5. Have a student do research and report on the latest developments in hearing aids. 6. If possible, have an ear specialist visit the class and discuss his work and the progress being made in restoring hearing. 7. Discuss the effect of environmental noise upon hearing.	*Articles* "Noise." *Scientific American.* December, 1966. "Let's Take the Din Out of Living." *Today's Health.* February, 1965. *Books* Lawrence, Thomas G. *Your Health and Safety.* Horrobin, David F. *The Communication System of the Body.* Otto, James H. *Modern Health.* *Films* *Ears: Their Structure and Their Care.* Coronet Films. *Ears and Noise: It Takes Two.* Price Vowell Filmakers, Inc.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	8. Have the students debate the following: Modern amplifying systems are contributing to permanent damage to the hearing of some teen-agers. 9. Have a student report on the relationship of the functioning of the ear and the ability of the body to maintain balance. 10. Discuss the fact that the ear assists the person to distinguish different properties of sound such as pitch, volume, and tone quality. 11. Have a student do research on the degree of communication that is made available through the sense of hearing. 12. Discuss the ear complications and hearing loss that may be caused by mumps, scarlet fever, and influenza.	*Hearing: The Forgotten Sense.* Price Vowell Filmakers, Inc. *Hearing: How We Listen.* Price Vowell Filmakers. Inc. *Hearing Loss in Infancy: Not Cleared for Hearing.* Price Vowell Filmakers, Inc. *Pamphlet* "How to Protect Your Hearing." United States Department of Health, Education and Welfare.
The outside world offers the same picture to each person, but what is seen in the picture depends on the individual. Perception of the environment: 1. Varies with each person 2. Variations cause confusion and misunderstanding	1. Without previous warning, take the class on a walk around the school (inside and/or ourside). The walk should be made in absolute silence. Upon returning to the classroom ask the students to describe in writing what they saw. Reproduce the descriptions (as written) so each student may have a copy. Have a random selection read aloud. 2. Have the students identify reasons for the differences in the descriptions. Discuss the importance of this experience in everyday living. 4. Discuss the fact that the blending of senses produces a vivid sensory impression or mental picture.	*Book* Hersey, Gerald L., and Lugo, James O. *Living Psychology.*
The health of one's sense organs is of basic importance in adapting to the environment.	1. Have the students review the structure and function of the skin. Discuss the importance of the senses of taste, smell, and touch in adapting	*Articles* "The Skin." *Scientific American.* February, 1965.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	to one's environment. 2. Have a few students do research and report on the skin's receptors, or nerve endings, which are sensitive to cold, touch, warmth, pressure, and pain. 3. Discuss the fact that man through his senses is constantly adapting to his environment.	"Taste Receptors." *Scientific American.* May, 1961. *Books* Bedichek, Roy. *The Sense of Smell.* Case, James. *Sensory Mechanisms.* Montague, Ashley. *Touching: The Human Significance of the Skin.* Wilentz, Joan Steen. *The Senses of Man.* Wilson, John Rowan. *The Mind.* *Filmstrip* *The Mechanics of Sensation.* Popular Science Audio-Visuals.

Area I PHYSICAL HEALTH

Field of Study **SLEEP, REST, AND RELAXATION** (Senior High)

Objectives

To help the student to:

1. Understand that sleep, rest, and relaxation are essential components in reducing tension and fatigue.
2. Understand that recreational activities are basic aids in the revitalization of the mind and body.
3. Appreciate that his total well-being is determined to a large extent by his practices of rest, sleep, relaxation, and activity.
4. Maintain his body in a healthy condition.

SLEEP, REST, AND RELAXATION (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Natural sleep is the most satisfying form of recuperation from tensions and fatigue.	1. Discuss causes of fatigue (oxygen debt, anemia, low blood sugar, malnutrition, emotional strain, illness, inactivity). 2. Discuss differences in body use of energy. Have the students study the procedure and significance of the basal metabolism test. 3. Have a student make a graph of the sleep requirements of the students in the class. 4. Have students report on scientific studies concerning sleep. 5. Debate or discuss the need for parental influence on sleep habits. 6. Have a student do research and report on the effect of the mattress on proper rest and sleep. 7. Have one or two students investigate army procedures relating to rest and sleep. 8. Discuss the fact that the body adjusts to various degrees of need for rest and sleep. 9. Discuss the effects of fatigue on emotional stability. 10. Discuss the importance of rest and sleep in the training of athletes or astronauts. Compare this type of training to that of an average person. 11. Discuss the factor of age in relation to the need for rest and sleep. 12. Have the students debate the advisability of using sleeping tablets. 13. Discuss the effects of stimulants on the need for sleep and rest. 14. Discuss the effects of noise pollution on the body's ability to sleep and rest. 15. Discuss the fact that sleep and rest are nec-	*Articles* "Light Sleepers More Active than Long Sleepers." *Science Digest.* September, 1970. "Patterns of Dreaming." *Scientific American.* November, 1960. "Sleep." *Scientific American.* November, 1952. "Sleep and Emotions." *Time.* June 29, 1970. "Sleep for Sale." *Today's Health.* September, 1964. "The States of Sleep." *Scientific American.* February, 1967. "What People Dream About." *Scientific American.* February, 1967. *Books* Bartley, S. Howard. *Fatigue: Mechanism and Management.* Fait, Hollis. *Health and Fitness for Modern Living.* Foulkes, David. *The Psychology of Sleep.* Kastner, J., and Kastner, M. *Sleep: The Mysterious Third of Your Life.* Kleitman, Nathaniel. *Sleep and Wakefulness.* Koella, Werner P. *Sleep: Its Nature and Physiological Organization.* Lawrence, Thomas G., *et al.* *Your Health and Safety.* MacKensie, Norman. *Dreams and Dreaming.* Mackey, Richard T. *Exercise, Rest and Relaxation.* Miller, Benjamin F., *et al.* *Investigating Your Health.* Steincrohn, Peter J. *How to Get a Good Night's Sleep.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	essary for proper growth and for good performance in school. 16. Discuss why the body's need for sleep and rest increases during periods of rapid growth. 17. Discuss a person's responsibility for assuring that he and his associates meet their requirements for sleep.	*Pamphlets* "Current Research on Sleep and Dreams." United States Department of Health, Education and Welfare. "Sleep - The Restorer." John Hancock Mutual Life Insurance Company.
Rest can be both a healer and a deterrent for a busy teen-ager.	1. Discuss the following statement: A wise student understands and recognizes his need for rest and consciously employs techniques to enjoy it each day. 2. Have each student exercise various parts of the body (finger, wrist) until fatigue sets in. Time both the exercise and recovery period. 3. Have each student take his pulse at various times during a day (after a meal, upon arising, while sitting still, after activity, and during periods of unusual activity). 4. Discuss the symptoms of fatigue. 5. Have the students identify the effect of chronic fatigue on the young person.	*Article* "Learn to Relax." *Today's Health.* August, 1964. *Books* Clark, Marguerite. *Why So Tired?* Hein, Fred V., and Farnsworth, Dana L. *Living.* Otto, James H., *et al. Modern Health.* Rathbone, Josephine L. *Relaxation.* Sherrington, Charles. *The Integrating Action of the Nervous System.* *Film* *Stress.* McGraw Hill Book Company.
An effective countermeasure to tension is relaxation.	1. Discuss the various ways different people relax or recover from fatigue. 2. Discuss the value of hobbies. Make a list of all the hobbies the students can name. 3. Have the students rate the hobbies according to expense – from no cost to high cost. 4. Have each student who has a hobby present a persuasive report on his interest to the class.	*Books* Jacobson, Edmund. *You Must Relax.* Visnuderananda, Swami. *The Complete Book of Yoga.* *Pamphlet* "Time in Your Hands." Equitable Life Assurance Society.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	5. Have a student demonstrate how to relax skeletal muscles.	
	6. Discuss the fact that improper vision can cause fatigue. Relate fatigue to diseases of other organs.	
	7. Discuss the fact that helping others assists some people to overcome fatigue.	
	8. Discuss activities a family can participate in to provide relaxation for everyone.	
	9. Have a few interested students explore the ancient system of Yoga as a method of relaxation.	
	10. Have the students establish criteria such as the following for choosing hobbies: (1) Present opportunities. (2) Expense involved. (3) Amount of time needed. (4) Group activities. (5) Individual activities. (6) Physical activities for physical well-being.	
	11. Invite representatives of local youth organizations to discuss the activities they provide for teen-agers.	

Area II MENTAL AND SOCIAL HEALTH

Field of Study **FAMILY LIVING** (Senior High)

Objectives

To help the student to:

1. Understand the family's function and role in society.
2. Understand the function and role of the individual within the family group.
3. Acquire knowledge that will assist him in approaching marriage and family life with realistic expectations.
4. Appreciate the responsibility of each individual to contribute to the strengthening of his family.
5. Increase his competence in developing and maintaining mutually satisfactory interpersonal relationships.

2

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Each family grows and completes a life cycle in its own unique way.	1. Discuss the phases a family goes through as it completes a total life cycle. 2. Have each student chart his own family cycle. He may have to seek information at home to complete his cycle. 3. Have a committee make up a representative family cycle, using information from the members of the class.	*Books* Duvall, Evelyn M. *Family Development.* Goode, William J. *The Family.* Minnesota Council on Family Relations. *Family Life Literature and Films: An Annotated Bibliography.* *Chart* *The Family Life Cycle.* American Health Association.
Many factors influence family unity. 1. Mutual affection 2. Emotional interdependence 3. Sympathy 4. Agreement on values and goals 6. Family events 7. Interdependence of family roles 8. Sexual behavior 9. Societal pressures	1. Have each student write a paper about the various factors which influence the unity of his family. After discussion, have him evaluate his family. 2. Discuss problems that may ensue when the temperament and interests of the husband and wife are very different. 3. Have the students do research on and discuss the specific factors which influence family unity.	*Books* Bowman, Henry A. *Marriage for Moderns.* Burgess, Ernest W., *et al. The Family.* Farber, Seymour M., *et al. Man and Civilization: The Family's Search for Survival.* Thal, Helen M. *Your Family and Its Money.* *Films* *Farewell to Childhood.* International Film Bureau. *Getting Along with Parents.* Massachusetts Department of Education. *Transparencies* *Family Cycle and Values.* 3M Company.
Successful marriage and parenthood is the result of the continuous growth process of the individual. Factors influencing the individual: 1. Idenitifcation of self	1. Discuss factors contributing to self-image (parents, peers, success, failure, perception of ability, sexual identity, spiritual identity). 2. Discuss factors influencing parent-child relationships (communication, attitude).	*Books* Call, A.L. *Toward Adulthood.* Cushman, Wesley, and Bennett, Bruce L. *Selected Health Problems.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
2. Self-understanding through understanding of others 3. Development of personality 4. Personality changes occurring during the life cycle 5. Values as a guide and resource	3. Discuss the following: What have the communication media done to widen the generation gap? 4. Discuss the effect of peer and sibling relationships on the development of personality. 5. Have the students list the periods in the life cycle affecting personality (infancy, pre-school, early school years, etc.). Have them identify personality changes that take place during the various periods. 6. Discuss the fact that one's values affect relationships with others. 7. Discuss factors which strongly influence a person's philosophy of life. 8. Have the students interview individuals who have reached retirement age. Discuss the problems confronting these people.	Duvall, Evelyn Millis. *Love and the Facts of Life.* Hanna, John Paul. *Teenagers and the Law.* Landis, Judson. *Personal Adjustment, Marriage and Family Living.* Levinsohn, Florence. *What Teenagers Want to Know.* Otto, James H., *et al. Modern Health.* *Filmstrips* *I Never Looked at It that Way Before.* Guidance Associates. *Think of Others First.* Guidance Associates. *The Tuned Out Generation.* District Medical Society Women's Auxiliary. *Values for Teenagers.* Guidance Associates. *Your Personality: The You Others Know.* Guidance Associates. *Pamphlets* "Ethics for Everyday Living." Science Research Associates. "A Full Life After 65." Public Affairs Pamphlet. "Your Years of Self-Discovery." Kimberly-Clark Corporation.
Dating, with its enherent values, is worthy of intelligent consideration. 1. Dating provides a. A step toward understanding the opposite sex b. An opportunity to appraise desirable and undesirable characteristics of the opposite sex	1. Discuss differences between the sexes and how these differences are changing as the roles change. 2. Discuss the importance of dating in developing one's ability to relate more effectively to others. 3. Discuss dating etiquette and the importance of assuming responsibility for one's date as well as for oneself.	*Books* Bowman, Henry. *Marriage for Moderns.* Duvall, Evelyn. *The Art of Dating.* Kirkendall, Lester. *Dating Tips for Teens.* Levinsohn, Florence. *What Teenagers Want to Know.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
c. An opportunity for developing inter-personal relations d. An experience for accepting and controlling emotions 2. Problems of dating a. Frequency of dates b. Setting standards of behavior c. Where to date d. Acceptable expression of affection e. Deciding to go steady f. Pinning	4. Discuss the problems some teen-agers and parents have in reaching an agreement about dating. 5. Have each student write a brief paper on his feelings regarding standards of conduct on dates.	*Filmstrip* *Values for Teenagers. The Choice Is Yours.* Guidance Associates. *Transparencies* *Developing Dating Criteria.* 3M Company.
The selection of a life partner is one of the most important decisions to be made. 1. Considerations in selecting a life partner a. Agreement in basic personal habits b. Compatibility in aims and ambitions c. Appreciation of each other's background d. Congenial socially e. Agreement on religious values, money, and material things 2. Preparation for marriage a. Courtship b. Engagement c. Factors enhancing a marriage (1) Parental approval (2) Understanding responsibilities (3) Ability to assume responsibility (4) Similar backgrounds and interests (5) Physical and mental health (6) Understanding respective roles d. Factors contributing to failure in marriage (1) Unrealistic expectations (2) Entering marriage with serious mental	1. Discuss the significance of a courtship period in preparation for marriage. 2. Discuss personal habits necessary for achieving success in marriage. 3. Discuss characteristics to be considered in selecting a life partner (biological and psychological). 4. Discuss the purpose of an engagement period and the advantages of the long versus the short engagement period. 5. Discuss the problems created upon deciding to marry without parental approval. 6. Discuss the importance of similar backgrounds and interests when making the decision to marry (age, religion, race, ideals, attitudes). 7. Discuss the need to understand that conflict is a necessary part of family life and the importance of finding positive ways to resolve problems. 8. Set up life situations and have the students discuss the situations and possible solutions (an	*Books* Johns, Edward B., *et al. Health for Effective Living.* Landis, Judson. *Personal Adjustment, Marriage and Family Living.* Oliver, Bernard J. *Marriage and You.* Peterson, James A. *Education for Marriage.* *Films* *Engagement: Romance and Reality.* McGraw-Hill Book Company. *Love and the Facts of Life.* District Medical Society-Women's Auxiliary. *The Meaning of Engagement.* Coronet Films. *Worth Waiting For.* District Medical Society-Women's Auxiliary. *Filmstrips* *And They Lived Happily Ever After.* District Medical Society-Women's Auxiliary.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
reservations (3) Lack of maturity (4) Parental interference (5) Unresolved religious problems (6) Financial problems	engaged girl who has recently recovered from a serious accident which resulted in the loss of a limb, etc.). 9. Invite a marriage counselor to discuss the qualities necessary for a successful marriage.	*When You're in Love.* Society for Visual Education. *Pamphlets* "Getting Married." Kimberly-Clark Corporation. "Looking Ahead to Marriage." Science Research Associates. "So You Think It's Love." Public Affairs Pamphlet. "What Makes a Marriage Happy." Public Affairs Pamphlet.
A successful marriage is dependent upon many factors. 1. Factors for consideration a. Mature love b. Mutual trust c. Ability to communicate d. Ability to deal with emergencies e. Feeling of unity 2. Factors relating to marital adjustment a. Sense of perspective d. Desire to succeed in marriage c. Willingness to compromise in solving differences d. Ability to manage family finances	1. Discuss emergency situations which may arise to cause conflict in a marriage. 2. Discuss decisions a couple must make relative to: (1) Church attendance. (2) Filing income tax returns. (3) Newspapers or magazine subscriptions. (4) Other marriage situations. 3. Discuss how individuals can establish mutual trust in a marriage.	*Books* Craig, Hazel. *Threshold to Adult Living.* Duvall, Evelyn M., and Hill, Reuben. *When You Marry.* Goode, W.J. *World Revolution and Family Patterns.* *Films* *From Generation to Generation.* Massachusetts Department of Education. *Handling Marital Conflicts.* McGraw-Hill Book Company. *Marriage Is a Partnership.* Coronet Films.
Successful parenthood and family life are essential to a healthy social structure. 1. Purposes of family a. Produce healthy personailties b. Prepare individuals for meaningful life c. Maintain continuity of society d. Pass on knowledge, customs, traditions, attitudes, and habits	1. Discuss the significance of the family in today's society. Develop a definition of the family. 2. Discuss the following statement: Children in the home increase the opportunity for establishing a permanent and happy marriage. 3. Discuss the fact that experiences obtained while babysitting can assist a teen-ager to become a	*Films* *Family Life.* Coronet Films. *Have a Healthy Baby.* Massachusetts Department of Education. *Steps Toward Maturity and Health.* Massachusetts Department of Education.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
e. Pass on intellectual, emotional, and spiritual qualities 2. Responsibilities of parents a. Pre-natal care b. Security for each child c. Love for each child d. Sharing of time with the children e. Educating each child f. Helping to establish worthwhile values g. Teaching respect for law and authority	better parent. 4. Discuss the importance of the period from birth to school age in a child's life. Have the students identify the significance of responsible parents at this period in the child's life. 5. Have the students observe younger children in the family. Discuss the observations and relate these to a better understanding of the importance of responsible parenthood. 6. Discuss problems encountered by teen-age parents. 7. Invite a pediatrician to discuss the importance of responsible parents in today's society. 8. Discuss the following statement: Marriage is the only socially approved insitituion for bearing children. 9. Have interested students obtain information about the community agencies available to help families with their problems. 10 Discuss the forces in America that are weakening the family unit. 11. Discuss the effects of heredity and environment upon children.	*Filmstrips* *And They Lived Happily Ever After.* Guidance Associates. *Babysitting.* Guidance Associates. *Transparencies* *Marriage and the Family: Responsibilities and Privileges.* 3M Company.
The family unit has a strong influence upon society and the future of mankind. 1. Changes affecting family life a. Shift from agriculaural, rural society to industrial, urban, megalopolitan society b. Increased mobility of families c. Increased life span d. Greater equality for women e. Technological advancement	1. Discuss the following statement: Each family lives out its life within the larger community of which it is a part. 2. Discuss the problems created as families learn more about the world from listening to the radio or watching TV. 3. Have the students compare the functions of the family 100 years ago with the functions of the family today.	*Books* Cavan, Ruth S. *The American Family.* Cavan, Ruth S. *Marriage and Family in the Modern World.* Duvall, Evelyn M., and Lewis, Dara S. *Family Living.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
f. Increased acquisition of material things	4. Have the students identify ways in which the family generates the first racial and religious attitudes.	
	5. Discuss the importance of the family in fostering tolerance, brotherhood, and cooperation relating to all aspects of society.	
	6. Discuss how education may assist in clarifying and strengthening the role of the family in modern society.	
	7. Discuss the burden and responsibility placed upon the family and society as the life span increases.	
	8. Have the students explore changes taking place in the family and society as day care centers increase and expand.	
	9. Have each student write a paper identifying some of the existing social problems (alcoholism, emotional illness, illegitimacy, etc.).	
	10. Have a few students do research and report on the variety of marriage customs in identifying cultural and family values.	

Area III CONSUMER AND ENVIRONMENTAL HEALTH

Field of Study **COMMUNITY HEALTH** (Senior High)

Objectives

To help the student to:

1. Understand the interrelatedness of individual and community health.
2. Develop an awareness of the valuable health services available in the community.
3. Appreciate the contributions made by the many health agencies.
4. Become involved in activities which contribute to improving the health status of the community.
5. Understand that community health has no boundaries in today's world.

COMMUNITY HEALTH (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Each individual can contribute to improving the health of the community. Contributing factors: 1. Individual's health knowledge 2. Individual's attitudes toward health and patterns of behavior 3. Role of the home, school, and community involving all segments of society	1. Discuss the interrelatedness of individual and community health. 2. Discuss the contributions the individual can make to community health. 3. Have the students examine the local newspapers to determine some of the health needs of the community. 4. Discuss how the students and their families can contribute to solving health problems. 5. Have a committee study the health services offered in the school system and compare these services to a standard criterion for school health services. 6. Have a committee meet with representatives from the P.T.A. and discuss how to promote more involvement in community health activities. 7. Discuss the following statement: Public health is everybody's business. 8. Local business organizations make valuable contributions towards improving the health and safety of the community. Have the students seek information about the work of such organizations.	*Books* Johns, Edward B., *et al. Health for Effective Living.* Otto, James H., *et al. Modern Health.* *Film* *Community Health Is Up to You.* McGraw-Hill Book Company. *Pamphlet* "Health Education in Our Schools Today: The Need for Agency Action" National Health Council. *Transparencies* *Principles of Community Organization for Health.* 3M Company.
Various nongovernmental organizations are providing a variety of health services to people. 1. Medical societies a. American Medical Association b. State and district medical societies 2. Hospitals (short and long-term services) a. Voluntary b. Proprietary	1. Have a student write to the American Medical Society for information on services rendered to the public. 2. Have a student write to the Massachusetts Medical Society for information describing the health services provided to the people in Massachusetts by the Society. 3. Invite a member of the Massachusetts Medical Society or a local society to speak about the func-	*Books* Herman, Harold, and McKay Mary Elizabeth. *Community Health Services.* Knowles, John H., *Hospitals, Doctors, and the Public Interest.* National Commission Community Health Services. *Health Is a Community Affair.* Turner, Clair E. *Personal and Community Health.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
3. Long-term care facilities a. Convalescent or nursing homes b. Rest homes c. Infirmaries d. Charitable homes for the aged e. Chronic disease hospitals 4. Day care centers 5. Model cities health centers (federally funded)	tion of the society in servicing the public. 4. Have a committee study what is being done at the local level to provide rehabilitative services for individuals needing such services. 5. Invite the director of a local nursing home to discuss the services available to patients and the opportunities available to school students for helping the patients (reading to the patients, playing musical instruments, writing letters for the patients). 6. Have two or three students visit a local hospital to discuss with the hospital administrator the services offered to the patients. 7. Plan for interested students to visit a local day care center and report to the class on health services and health related activities offered.	*Film* *Community Health and You.* Massachusetts Department of Education. *Pamphlet* "Day Care Services." United States Department of Health, Education and Welfare.
*Many voluntary health agencies are making a valuable contribution to the community.** 1. Some contributing agencies a. American Cancer Society b. American Red Cross c. Massachusetts Association for Mental Health d. Massachusetts Association for Retarded Children e. Home Health Aid Service f. Visiting Nurses Association g. Massachusetts Heart Association h. Massachusetts Society for the Prevention of Cruelty to Children i. Massachusetts Tuberculosis and Health League	1. Have individual students investigate the symbol of a voluntary agency and report on its significance to the class (American Cancer Society - Sword of Hope). 2. Invite representatives of the nearest voluntary health agencies to inform the students of the contributions made by the agencies to improve the health of individuals. 3. Plan to have the class or representative members of the class visit some of the health agencies.	*Books* Smolensky, Jack, and Haar, Franklin. *Principles of Community Health.* United Community Services of Metropolitan Boston. *Directory of Social, Health, Welfare and Rehabilitation Services.**

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* For a complete listing of agencies see book listed under Resources.

Concepts and Primary Concerns

- j. United Community Funds and Councils

2. Support by agencies of research projects to:
   - a. Determine causes of and cures for disease
   - b. Help maintain good health in general

Government organizations have a responsibility for the general welfare of the total population.

1. Federal government
   - a. United States Department of Health, Education and Welfare
     - (1) Social Security Administration
     - (2) Office of Education
     - (3) Social and Rehabilitation Service
     - (4) Public Health Service
   - b. Constitutional and legal basis for public health
   - c. Neighborhood health centers encompassing federal, state, and local programs (staffed and oriented to serve minority inner city residents)
2. State government
   - a. Provides programs in personal health services, research, environmental health, public health education, administrative services
   - b. Furnishes advisory and consultative services to local health departments
   - c. Coordinates health related agencies
   - d. Maintains hospitals and laboratories
3. Local government -- official health agency
   - a. Programs and services
     - (1) Central services (vital statistics, pharmacy, laboratory)
     - (2) Nursing services (in-service, nursing education)

Sample Learning Experiences

1. Have each student do research on the agency which is most pertinent to his interests:
   - (1) Children's Bureau.
   - (2) Food & Drug Administration.
   - (3) National Institute of Health.
   - (4) Consumer Protection and Environmental Health Service.
2. Have a student study and report on the seal of the United Public Health Services.
3. Have a student visit the public health regional office to discuss the health services provided to the people in the local area.
4. Obtain or prepare a flow chart showing the organization of the various health agencies in Massachusetts.
5. Identify the contributions made by the various state agencies to public health.
6. Have the students write to various state agencies requesting materials and information about the function of the agencies.
7. Invite the local health officer to visit and discuss community needs.
8. Have a student check with the local health officer to learn whether the community has a problem with breeding places of flies and mosquitoes.

Resources

Books

Ehlers, Victor M., and Steel, E.W. *Principles of Rural and Municipal Sanitation.*

Meredith, Florence L., *et al. Health and Fitness.*

Osborn, B.M. *Introduction to Community Health.*

Porterfield, J.D. *Community Health: Its Needs and Resources.*

Smolensky, Jack, and Haar, Franklin. *Principles of Community Health.*

Turner, Clair E. *Personal and Community Health.*

United Community Services of Metropolitan Boston. *Directory of Social, Health, Welfare, and Rehabilitation Services.*

Film

Improving America's Health. Coronet Films

Pamphlet

"The Neighborhood Health Center." Community Action Program Office of Economic Opportunity.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
(3) Environmental programs (food and restaurant inspections; water supply; rodent, insect, and vermin control; sewage disposal and sanitation; solid waste management; air pollution control; environmental sanitation) b. Maternal and child health (1) Clinics (2) Foster home placement (3) School health c. Communicable disease control		
Comprehensive health planning encompasses all the health needs of the people. 1. Comprehensive health planning organization a. Massachusetts Office of Comprehensive Health Planning (area wide health planning councils) b. Scope (health as a totality) (1) Physical health (2) Mental health (3) Environmental health c. Membership includes a majority of consumers of health services 2. Planning commission offering regional concept for a. Water supply b. Sewage disposal c. Solid waste management (1) Collection (2) Disposal	1. Discuss the new law (Public Law 89-749), "Partnership for Health," which provides for the establishment of a single state agency to develop a comprehensive health plan for the state. 2. Invite a representative from the nearest Areawide Health Planning Council to discuss the function of the Council and its relationship to the local community. 3. Invite a council member who represents the consumers of health services on the Areawide Health Planning Council to discuss his role in the comprehensive health planning for the local area.	*Book* Herman, Harold, and McKay, Mary Elizabeth *Community Health Services.* *Film* *Community Health Is Up to You.* McGraw-Hill Book Company. *Transparencies* *Comprehensive Health Care Requirements. Provider and Consumer for Health Care.* 3M Company.
The most important component of a comprehensive health program is the health personnel that make it function.	1. Invite a member of the guidance department to discuss the many opportunities available for careers in comprehensive health programs.	*Book* Bureau of Employment Security, United States Department of Labor. *Health Careers Guidebook.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
1. Need for qualified health personnel a. Demand for higher health standards b. Increase in total population 2. Opportunities in health vocations a. Administration of health services b. Dietetic and nutrition services c. Environmental health services d. Public health educators e. Health information and communications f. Health statistics g. Medical engineering h. Medical profession i. Medical technology j. Nursing and related services for patients k. Occupational health services l. Medical social workers 3. Unifying focus in health occupations is people a. Many demands are made on the individual b. Individual must place others above personal interests c. Health worker provides a great service to humanity	2. Invite individuals involved in health related careers to discuss the variety of opportunities in health occupations. 3. Arrange for students with special interests in health fields to study those areas and report to the class.	
Personal and community health make up the basic ingredient for world health. 1. World Health Organization (central technical services) a. Epidemiological intelligence and quarantine b. International health statistics c. International standards for therapeutic substances d. Atomic energy and health e. Laboratory techniques f. Publications 2. Critical world health problems	1. Discuss the following statement: If one has never really experienced good health, there is no way to comprehend what one is missing. 2. Relate the above discussion to the health status of underdeveloped countries in various parts of the world. 3. Discuss health as the right of all individuals as stated by the World Health Organization: "One of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition."	*Periodical* *World Health.* World Health Organization.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
a. Quantity and quality of water b. Nutritional needs of increasing population c. Over population (1) Depletion of natural resources (2) Disposal of wastes d. Accidents e. Infant mortality f. Communicable diseases g. Epidemics	4. Discuss the duty of all individuals as expressed by the World Health Organization: "The health of all peoples is fundamental to the attainment of peace and security and is dependent upon the fullest cooperation of individuals and states." 5. Have some interested students study and report on the background and progress of the World Health Organization established in 1948.	
Health and social problems are profoundly interrelated. Critical problems include: 1. Poverty and health 2. Aging and health 3. Alcoholism and health 4. Drug addiction and abuse	1. Have a few students investigate the health related activities of UNICEF. 2. Have a committee plan a trip to the Far East. The members can explore the following: (1) Steps involved in seeking a passport. (2) Information needed to avoid health problems while traveling.	

Area III CONSUMER AND ENVIRONMENTAL HEALTH

Field of Study ECOLOGY (Senior High)

Objectives

To help the student to:

1. Understand that his behavior has a direct effect upon his environment.
2. Understand that the environment has a direct effect upon the well-being of man.
3. Appreciate the contributions made by individuals and agencies working toward a healthful environment.
4. Become involved in improving the environmental health of his community.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Our modern way of life has created problems of environmental health. 1. Increased population 2. Technological advances 3. Increased life span 4. High standard of living 5. Urban living	1. Have the students identify current problems that affect environmental health. 2. Traffic congestion and accidents create a wide range of environmental problems. Have the students explore these critical problems and report to the class. 3. Invite the driver education teacher to discuss the above problems. 4. Ask a student to look up statistics on the projected increase of population to the year 2000. He can make a transparency showing the projection and present his findings to the class. 5. Invite a member of the medical profession to discuss the new health problems created for man as the life span increases. 6. Have several students investigate the procedures established in England and Sweden related to caring for the aged. 7. Have the students investigate various locations such as public buildings, laboratories, auto repair shops, paint stores that may create health hazards.	*Books* Dubos, Rene. *Man, Medicine and Environment.* Johns, Edward B., *et al. Health for Effective Living.* Kormondy, E.J. *Concepts of Ecology.* Neilson, Elizabeth A. *et al. Healthful Living in Your Environment.* United States Department of Health, Education and Welfare. *A Strategy for a Livable Environment.* *Films* *A Day at the Dump.* Stuart Finley. *The Ecology of Man.* The Graphic Curriculum. *The House of Man - Our Crowded Environment.* Encyclopaedia Britannica Educational Corp. *Little Man, Big City.* Center for Mass Communication. *Man's Impact on the Environment.* Modern Learning Aids. *Multiply...and Subdue the Earth.* Association Instructional Materials. *The Noisy Landscape.* Sterling Films. *Pamphlet* "Ecology: Man Explores Life." American Education Publications.
The health of the individual is dependent to a great extent on the ability of the population to deal with the ecological forces of the environment.	1. Have the students identify the terms *community, ecology, ecological system,* and *environmental health.* 2. To sustain his life man needs on the average 4¼ pounds of water, 2 to 3 pounds of food, and	*Books* Crew, R.A.E. *Health, Its Nature and Conservation.* DeBell, Garrett. *The Environmental Handbook.* Goldman, Marshall. *Controlling Pollution.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	30 pounds of air each day. Have the students do research on the hazards man faces today because these needs now contain pollutants. 3. Discuss the social effects of poor housing on people of all ages. 4. Studies have shown that admissions to mental hospitals correlated highly with problems of living under undesirable housing conditions. Have the students identify the various problems (lack of privacy, too much solitude, poor facilities, etc.). 5. Invite a member of the social service department to discuss the importance of a desirable housing environment for healthful living. 6. Discuss the effects of junkyards, litter, signs, and landscape pollution on the mental attitudes of children and adults.	Lawrence, Thomas Gordon, *et al. Your Health and Safety.* Schiffers, Justus J. *Healthier Living.* Stover, J.L. *Man in the Web of Life.* Wilson, Charles C. and Wilson, Elizabeth A. *A Healthful School Environment.*
Air pollutants adversely affect the health of man. 1. Sources a. Chemical pollutants b. Radioactive pollutants c. Biological substances 2. Effects a. Disease (1) Emphysema (2) Chronic obstructive pulmonary disease (3) Bronchial asthma (4) Increased incidence of the common cold (5) Lung cancer b. Poor visibility	1. Have a few students contact local and state officials to obtain data on the degree of air pollution at various times in different sections throughout Massachusetts. 2. Discuss the adoption and enforcement of legislation requiring air pollution devices on cars. 3. Surgeon General William H. Stewart has stated the following: "The threat to health, in my opinion, constitutes the primary impulse for the control of air pollution in the United States." Discuss the implications of this statement. 4. Ask the Local Tuberculosis and Respiratory Disease Association to provide sections of	*Books* Battan, Louis J. *The Unclean Sky.* Carr, Donald E. *The Breath of Life.* Lewis, Howard R. *With Every Breath You Take.* Local Tuberculosis and Respiratory Disease Association. *Air Pollution Primer.* *Films* *Air.* Massachusetts Department of Education. *Clear the Air.* American Petroleum Institute. *The Poisoned Air.* Association Instructional Materials.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
c. Deterioration of materials (corrosion, tarnish, soiling, weakening, etc.)	lungs showing varying degrees of contamination from pollutants.	*Problems of Conservation: Air.* Encyclopaedia Britannica Educational Corp.
3. Cost a. Cleaning bills b. Corrosion c. Crop losses d. Lowered property values e. Medical care	5. Have a few students examine the state and local regulations regarding the burning of trash and leaves by an individual in his own yard.	*Toward a Cleaner Air.* Association Films, Inc. *The Trouble with Trash.* Modern Talking Picture Service.
	6. Visit the automotive shop in the high school to witness a demonstration of the smog control devices on automobiles. Discuss the State regulations on such devices.	*Pamphlets* "Air Pollution and Respiratory Disease." United States Department of Health, Education and Welfare.
	7. Have a few students study the effects of temperature inversion on the community.	"Air Pollution: The Facts." Local Tuberculosis and Respiratory Disease Association.
	8. Have the students study and discuss the Air Quality Act of 1967 and the Clean Air Act of 1970. A few students can visit with local leaders to discuss how these acts assist local communities to improve the environment.	"Air Pollution Injury to Vegetation." United States Department of Health, Education and Welfare. "The Air Quality Act of 1967." (Also the Clean Air Air Act of 1970) United States Department of Health, Education and Welfare.
		"The Effects of Air Pollution." United States Department of Health, Education and Welfare. "The Federal Air Pollution Program." United States Department of Health, Education and Welfare. "The Modern Miasmas." Metropolitan Life Insurance Company. "Needed: Clean Air." Channing L. Bete Company, Inc. "No Laughing Matter." United States Department of Health, Education and Welfare. "The Sources of Air Pollution and Their Control." United States Department of Health, Education and Welfare. "Take Three Giant Steps to Clean Air." United States Department of Health, Education and Welfare.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Man now realizes that the water supply is not limitless and must be carefully managed if he is to survive. 1. Sources a. Surface of the earth (rivers, streams, lakes) b. Below the surface (springs, wells) 2. Treatment (aeration or chemicals) 3. Pollutants a. Sewage b. Infectious agents c. Plant nutrients d. Organic chemical foreign wastes e. Minerals and natural chemicals f. Sediment g. Radio active wastes h. Heat	1. Identify the sources of water in the local area and in the State. 2. Discuss the method of treating water in the local area. Then visit the local treatment plant. 3. Invite a sanitation engineer to discuss how the local water supply is safeguarded. 4. Have the class read about the process of desalination of water and discuss the possibility of such a project for the communities along the coastline of Massachusetts. 5. Have the students list the various ways man uses water and the ways excessive use and waste of water can be avoided. 6. Have the students identify the industries in the local community and find out (1) how they use the local water and (2) if they still discharge untreated wastes directly into community waterways. Then have the students identify other sources of water pollution (malfunctioning septic tanks, salt on highways, etc.). 7. Have a few students study the Federal Water Pollution Control Act and identify how this Act may assist leaders in local communities to improve the quality of local water. 8. Discuss the interrelatedness of the urban and rural communities as they face the problem of polluted water. 9. Discuss the responsibility of each family to conserve and safeguard the local water supply.	*Books* Behrman, A.S. *Water Is Everybody's Business.* Graham, Frank. *Disaster by Default: Politics and Water Pollution.* Halacy, D.S. *The Water Crisis.* Lawrence, Thomas G., *et al. Your Health and Safety.* Leopold, Lana B., and Davis, Kenneth S. *Water.* Murphy, Earl Finbar. *Water Purity.* Nikolaieff, George, ed. *The Water Crisis.* Schiffers, Justus J. *Healthier Living.* United States Department of Interior. *Conservation Yearbook No. 6: River of Life...Environmental Report.* Wright, J.C. *The Coming Water Famine.* *Films* *Man's Problem.* Encyclopaedia Britannica Educational Corp. *The New River.* Kimberly Clark Corporation. *The Water Famine.* Association Instructional Materials. *Pamphlets* "Keep It Clean." Bethlehem Steel Corporation. "Needed Clean Water." Channing L. Bete, Inc.
Noise has become a deterrent to the well-being of many individuals.	1. Invite an accoustical engineer to discuss what is being done in factories and in homes to reduce "noise pollution." 2. Discuss the controversial subject of the super-	*Books* Beales, P.H. *Noise, Hearing and Deafness.* Johns, Edward B., *et al. Health for Effective Living.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	sonic transport and the problems which may result when such a plane is put into service. 3. Discuss the problem of noise and its effect upon individuals in daily living. Have the students identify noises which are a source of annoyance in neighborhood and apartment living. 4. Discuss the responsibility each person has to eliminate excessive noise.	World Health Organization. *Noise: An Occupational Hazard and Public Health Hazard.* *Film* *Noise - The New Pollutant.* Indiana University Audio-Visual Center.
The body can be adversely affected from radiation exposure. Sources of radiation: 1. Natural radiation (cosmic rays) 2. Chemical substances (uranium and radium) 3. Radioactive elements (products of nuclear fission: strontium-90, cesium-137, and plutonium)	1. Have the students explore the radiation health hazards created since the advent of the nuclear age. 2. Invite a radiation specialist to discuss the effect of gamma rays, beta particles, alpha particles, and radiation on life. 3. Discuss the issue of nuclear power plants versus fossil fuel power plants. 4. Discuss the rays emitted from television sets and whether they are creating a hazard to the body. 5. Have the students obtain facts from a local dairy association or the state public health department on the content of strontium 90 in milk. 6. Have the students explore the possible hazard of young children ingesting the luminous radium paints found on dials of watches and clocks. 7. Invite a physician to discuss the possibility of hereditary defects at birth or before adulthood as a result of radiation.	*Books* Barnes, D.E., and Taylor, Denis. *Radiation Hazards and Protection.* Bletz, N. *Introduction to Radiological Health.* Calder, Ritchie. *Living with the Atom.* Otto, James H., *et al. Modern Health.* Schubert, Jack, and Lapp, Ralph E. *Radiation.* Smolensky, Jack, and Haar, Franklin B. *Principles of Community Health.* *Film* *Fallout.* Massachusetts Department of Education. *Pamphlets* "Effects of Radiation and Fallout." Public Affairs Committee. "Environmental Radiation Surveillance." United States Department of Health, Education and Welfare. "Pollution, Radiation and Climate." National Center for Atmospheric Research.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Pesticides are both valuable and potentially dangerous. 1. Potential hazards a. May enter the human body by (1) Ingestion (on food, contaminated dishes and utensils) (2) Inhalation (spray from aerosol cans, dusting powders for plants) (3) Absorption (through skin) 2. Benefits a. Increase production of food and other products b. Control of disease incidence (encephalitis, malaria, yellow fever, bubonic plague, cholera, and typhus)	1. Have the students seek information on the current facts relating to pesticides and health. 2. Ask the students to study the labels on containers and look for chlorinated hydrocarbons which include D.D.T., dieldrine, chlordane, and heptachlor. Have them investigate the chronic and fatal effects of such chemicals on the human body. 3. Have the students study the Federal Insecticide, Fungicide and Rodenticide Act controlling pesticide use. Discuss the need for such regulation and the enforcement of the Act. 4. Invite a representative from the State Department of Agriculture to discuss the widespread use of chemicals in agriculture and the toxicity of such chemicals. 5. Discuss the responsibility of parents and other adults in taking precautionary measures with pesticides in the home.	*Books* Carson, Rachel. *Silent Spring.* Graham, Frank. *Since Silent Spring.*
The health of the individual is often influenced by his occupation. Most common occupational hazards: 1. Silicosis (foundaries, coal mines, potteries, metal mines, others) 2. Dermatitis (alkalies, solvents, petroleum products, dyes, others) 3. Accidents (personal or mechanical difficulties)	1. Have interested students do research and report on the many environmental agents – chemical, physical, and biological – which adversely affect the human body. 2. Invite a representative from a labor organization to discuss the steps labor is taking to improve the standards for occupational health. 3. Have the students discuss the importance of the following: Eighty to eighty-five percent of industrial accidents are due to faulty human actions. 4. Invite a representative from a local industrial safety program to speak to the class about the application of preventive medicine in industry	*Books* Smolensky, Jack, and Haar, Franklin B. *Principles of Community Health.* *Films* *Be Current Wise.* Employers Mutual Insurance Company of Wausau. *Safety with Electricity.* Encyclopaedia Britannica Educational Corp.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	and what the business organization is doing to improve the environment for the employees.	
Attention to the environmental health aspects of recreational areas is essential.	1. Discuss the problems of sanitation in a recreational area and the implications of people moving in and out of recreational areas. 2. Have the students take a trip to a recreational area in the vicintiy and identify areas which could create environmental health problems.	*Books* Sierra Club. *Ecotactics: The Sierra Club Handbook for Environment Activists.* United States Dpartment of Health, Education and Welfare. *Environmental Health Practices in Recreational Areas.* *Pamphlet* "Search for Solitude." United States Department of Agriculture.
The quality of the environment will depend on the sensitivity of the public. Future planning includes: 1. Greater consideration of causes of contamination in urban planning 2. Elimination of automobiles from the center of the city 3. Planting of grass and trees 4. New ways of eliminating industrial wastes 5. Increased monitoring for radioactive material in air, food, and water 6. Others	1. Discuss the importance of every individual assuming the responsibility for improving his environment. 2. Have the students identify an "environmental concerns" committee in the community. Then have a student interview a member of the committee and report his findings to the class. 3. Invite a member of the local "environmental concerns" committee to discuss the contribution the committee is making to improve the environment.	*Books* Bernarde, Melvin A. *Our Precarious Habitat.* Bresler, Jack B. *Human Ecology: Collected Readings.* Commoner, Barry. *Science and Survival.* Council on Environmental Quality. *Environmental Quality.* Crew, R.A.E. *Health, Its Nature and Conservation.* Dubos, Rene. *Man, Medicine and Environment.* Ehrlich, Paul R. and Ehrlich, Anne H. *Population, Resources, Environment.* Ewald, William. *Environment for Man: The Next Fifty Years.* Herber, Lewis. *Crisis in Our Cities.* Herber, Lewis. *Our Synthetic Environment.* Johnson, H.D. *No Deposit, No Return. Man and His Environment.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
		Stewart, George R. *Not So Rich as You Think.* United States Department of the Interior. *Conservation Yearbook: Man...An Endangered Species.* *Films* *Sense of Wonder.* McGraw-Hill Book Company. *What Are We Doing to Our World.* McGraw-Hill Book Company. *Pamphlet* *A Strategy for a Livable Environment.* United States Department of Health, Education and Welfare.
Public health measures initiated to improve environmental health in the community need the support of each responsible person.	1. Have a student meet with the local health officer to discuss local health problems.	*Books* Kormandy, E.J. *Readings in Ecology.* Michener, James A. *The Quality of Life.*

Area III CONSUMER AND ENVIRONMENTAL HEALTH

Field of Study HEALTH CAREERS* (Senior High)

Objectives

To help the student to:

1. Understand the unlimited opportunities available in many fields under the broad spectrum of health careers.
2. Appreciate the valuable contribution an individual can make to mankind in working in the health field.
3. Consider carefully a career in a health related field.

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* The lack of qualified health personnel is a major concern today among those responsible for providing health education and health care throughout the United States. This existing need may be identified by school guidance personnel and other educators as a lifetime opportunity for many students, both men and women, who have not made a decision upon a career. Over 200 opportunities in health occupations are now available to individuals interested in careers of service to people. See Appendix for Minimum Educational Requirements for Allied Health Occupations.

HEALTH CAREERS (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
The demand for qualified people in the health fields is increasing.	1. Have each student do research and report on a health career of interest to him. 2. Invite a member of the guidance department to speak about opportunities in health related fields. 3. Ask the students to bring in help wanted sections from the newspapers. Have them circle in red the health related positions.	*Books* Lynn, Kenneth S. *The Professions in America.* Massachusetts Medical Society Women's Auxiliary. *Horizons Unlimited.* Pollack, Phillip. *Careers and Opportunities in Science.* United States Department of Health, Education and Welfare. *Health Resources Statistics.* *Pamphlets* "Health Power Is People." Tennessee Health Careers Program. "In Careers for the Now Generation." Tennessee Health Careers Program.
The opportunities for work in health related fields are varied and stimulating. Some occupations: 1. Provide for the ill and injured 2. Help to prevent illness 3. Provide opportunities to work with people 4. Provide opportunities to work with tools and materials of science 5. Require little special training 6. Require more than four years of college 7. Provide opportunities in the local community 8. Provide opportunities that are world-wide	1. Have the students discuss the steps to be taken in seriously considering a career in health: (1) Weighing own interests and goals. (2) Deciding what one can bring to the service of others. (3) Deciding what one is to get out of life itself. 2. Have the students explore the opportunities in health careers in the local area and in various parts of the world. 3. Have the students write to local community colleges and state and private colleges for information on health related fields. Provide opportunities for the students to share their findings. 4. In cooperation with the guidance department, have the students arrange a display of pamphlets and other materials on the many health related fields.	*Books* Bender, George A., and Thom, Robert A. *Great Moments in Pharmacy.* Dodge, Bertha S. *Hands that Help: Careers for Medical Workers.* Editors of Changing Times. *You, Your Job and Your Future.* Gallagher, Thomas. *The Doctor's Story.* Groh, George W. *Gold Fever.* Knoedler, Evelyn L. *The Nurse Assistant.* Liston, Robert A. *On the Job Training and Where to Get It.* Manpower Administration. *Health Careers Guidebook.* Massachusetts Medical Society Women's Auxiliary. *Horizons Unlimited.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
	5. Have the students report on a chosen occupation. The report may include the following: (1) Description of the job. (2) Need. (3) Salary range. (4) High school requirements. (5) Training requirements. (6) Personal reactions. (7) Sources of information. (8) Expense of preparation.	Miller, Benjamin F. *Investigating Your Health.* Nourse, Alan E. *So You Want to Be a Doctor.* Nourse, Alan E., and Halliday, Eleanor. *So You Want to Be a Nurse.* Paffenbarger, George C. *Frontiers of Dental Science.* United States Department of Labor. *Occupations Outlook Handbook.* Wood, Nancy E. *Delayed Speech and Language Development.*
	6. Have the students arrange for a career conference. Invite school personnel, nurse, doctor, dietician, etc., to present their views on health career opportunities.	*Film* *Health Careers.* Wilding Productions.
Positions in health related fields offer the individual personal satisfaction in helping others.	1. Discuss the importance of finding personal satisfaction in one's work. 2. Invite individuals to discuss various types of work that provide a feeling of a personal contribution to others. 3. Have the students read and report on the biography of a man or woman who has contributed to the health field. 4. Have a student choose a career and write a paper on the qualifications, training needed, opportunities, advantages, and disadvantages of such a career. 5. Discuss the importance of personal qualifications as well as academic preparation for various health occupations.	*Books* Anslinger, Harry Jacob. *The Protectors.* Atchley, Dana. *Physician, Healer and Scientist.* Colman, Hila. *A Career in Medical Research.* Frederick, Portia M., and Kinn, Mary E. *The Office Assistant in Medical Practices.* Hanlon, John J., and McHose, Elizabeth. *Design for Health: The Teacher, the School and the Community.* Love, Albert, and Childers, James Saxon. *Listen to Leaders in Medicine.* Nourse, Alan E. *So You Want to Be a Doctor.* Nourse, Alan A., and Halliday, Eleanor. *So You Want to Be a Nurse.* Paffenbarger, George C., *Frontiers of Dental Science.*

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Massachusetts has many sources for opportunities in preparing for health careers.	1. In cooperation with the guidance department, have the students prepare a map of Massachusetts and identify the location of schools, junior colleges, colleges, and universities that offer health careers programs. 2. Arrange for the "Horizons Unlimited Health Careers Mobile" to visit the community to show films, slides, and printed materials on the many careers in medicine.	*Pamphlet* "Careers in Dentistry." American Dental Association. *Careers Mobile* Horizons Unlimited. Massachusetts Medical Society Women's Auxiliary. *Film* *Horizons Unlimited.* Massachusetts Medical Society Women's Auxiliary. *Pamphlet* *"The Health Manpower Act of 1968."* United States Department of Labor.
The federal government has recognized the nation's need for health manpower as critical and urgent.	1. Provide the students with materials showing the availability of loans and scholarships for training in health careers.	*Books* Manpower Administration, United States Department of Labor. *Health Careers Guidebook.* United States Department of Labor. *Occupations Outlook Handbook.*

Area IV SAFE LIVING

Field of Study FIRST AID AND EMERGENCY PROCEDURES (Senior High)

Objectives

To help the student to:

1. Understand the importance of saving human life through the knowledge of good first-aid techniques.
2. Appreciate the necessity for all people to be adequately prepared for emergencies.
3. Recognize the many agencies, governmental or nongovernmental, co-ordinating services in preparation for common life-threatening emergencies.
4. Become proficient in all essential first-aid procedures.

FIRST AID AND EMERGENCY PROCEDURES (Senior High)

Concepts and Primary Concerns	Sample Learning Experiences	Resources
Common life-threatening emergencies are a daily occurrence. 1. Preventing common life-threatening emergencies 2. Lessening the chance of death or disabling injury	1. Discuss the concept and have students identify some common life-threatening emergencies that they are aware of at home, school, work, and in recreational areas. 2. Have the students look at recent statistics of deaths and disabling injuries by age groups. 3. Discuss preventable accidents. 4. Discuss the probability of further injury or permanent disability as the result of improper first-aid techniques.	*Books* American Red Cross. *Home Nursing Textbook.* National Safety Council. *Accident Facts - 1970.* Thompson, Ella M., and LeBaron, Margaret. *Simplified Nursing.* Massachusetts Department of Public Health Medical Self-help Program. *Family Guide Emergency Health Care.* *Film* *First Aid for Common Emergencies.* American Red Cross Local Chapter.
Basic first aid involves logical sequential procedures. 1. Aiding the most seriously injured first 2. Giving vital body systems priority a. Bleeding b. Breathing c. Shock 3. Seeking medical assistance if necessary 4. Transporting injured properly	1. Discuss the most common life-threatening emergencies and their care (severe bleeding, stoppage of breathing, poisoning). Stress the importance of: (1) Finding all the injuries. (2) Moving the victim as little as possible. (3) Establishing priorities. 2. Discuss causes, effects, and prevention of infections. 3. Have the students take part in a discussion revolving around the football player who is rendered unconscious and regains consciousness only to collapse later in the day.	*Book* American Red Cross Local Chapter. *First Aid Textbook.* *Films* *Bleeding and Bandaging.* Medical Self-help Series. *Shock.* Medical Self-help Series. *Pamphlets* "Emergency." Massachusetts Safety Council. "Rescue Breathing." Health Education Service.
Common life-threatening emergencies require immediate attention. 1. Bleeding 2. Asphyxia 3. Poisoning	1. Discuss the function and make-up of the circulatory system and how to control different types of bleeding. 2. Have a student demonstrate rescue-breathing, utilizing the various methods of artificial resuscitation. (Use a mannequin for mouth-to-mouth resuscitation practice.)	*Films* *Artificial Respiration.* Medical Self-help Series. *Breath of Life.* Massachusetts Heart Association. *Burns.* Medical Self-help Series. *Children at Play with Poison.* American Medical Association.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
4. Burns 5. Fractures 6. Eye injuries 7. Convulsions and epileptic seizures	3. Discuss the most common types of accidental poisoning. Include drug abuse. Stress that all poisoning victims should be examined by a physician. 4. Have a student present information on the function, location, and operation of the nearest Poison Information Center. 5. Discuss burns in general and their first-aid care (chemical, thermal, and electrical burns). 6. Have a fire prevention inspector speak about fire and its inherent dangers. 7. Through the use of moulages, have the students demonstrate the different types of broken bones. Using improvised material, have them splint various types of bone breaks and/or fractures. 8. Have a local doctor speak about the anatomy of the eye and specific eye injuries. 9. Have the students demonstrate proper and improper methods of moving an injured person and indicate the damage that can be caused through improper movement.	*Emergency Resuscitation.* Massachusetts Heart Association. *First Aid for Burns.* American Red Cross Local Chapter. *Fractures and Splinting.* Medical Self-help Series. *Hands of Action.* Department of Civil Defense. *The How and Why of Standard First Aid.* American Red Cross Local Chapter. *Transportation of Injured.* Medical Self-help Series.
Certain types of emergencies are more common than others. 1. Accidents a. Motor vehicle b. Recreational c. Home 2. Natural disasters a. Hurricanes and floods b. Excessive heat c. Extreme cold 3. Man-made disasters a. Explosions	1. Discuss the following statement: The other fellow always has the right of way. 2. Invite an inspector from the Massachusetts Registry of Motor Vehicles to show the film *Mechanized Death.* 3. Have the students list the various recreational pursuits common to their age group and some safety precautions which may apply. 4. Invite the athletic director to discuss causes and effects of athletic injuries. 5. Have the students write an essay on the follow-	*Books* American Red Cross Local Chapter. *First Aid Textbook.* American Psychiatric Association. *Psychological First Aid in Community Disasters.* Sharpe, J.C., and Marx, F.W. *Management of Medical Emergencies.* *Films* *Anatomy of an Accident.* Association Films, Inc. *Auto, U.S.A.* National Commission on Safety, N.E.A.

Concepts and Primary Concerns	Sample Learning Experiences	Resources
b. Bombings c. Civil disorders d. Strikes e. Nuclear accidents	ing statement: The least safe place in the United States is the typical American home.	*Blasting Cap Damage.* Massachusetts Department of Public Health.
	6. Have the students do research and report on a recent hurricane and the damage it caused.	*Fall-Out - Nuclear Radiation.* Massachusetts Department of Education.
	7. Discuss the public health hazard inherent in floods.	*Mechanized Death.* Massachusetts Registry of Motor Vehicles.
	8. Discuss heat exhaustion and heat stroke.	*Children of Hiroshima.* Massachusetts Department of Education.
	9. Have a member of the class report on the effects of excessive periods of extreme heat on an individual.	*Strike in Town.* Massachusetts Department of Education.
	10. Have the students write a paper on the correlation between heart attacks and extreme cold.	*Tornadoes.* Massachusetts Department of Public Health.
	11. As a class project have the students draw up a bill to be enacted by the state legislature establishing meaningful regulations for the sale and use of explosives.	*Films* *Nursing Care of Sick and Injured.* Medical Self-help Series.
	12. Discuss the effects of emotional contagion (mass hysteria) on a group of people involved in a bombing.	*Radioactive Fallout Shelter.* Medical Self-help Series.
At least one member of each family should be adequately trained to assist in the event of a disaster.	1. Discuss the importance of individuals in a family being properly trained to assist in any kind of emergency.	*Film* *Healthful Living in Emergencies.* Medical Self-help Series.
	2. Have some of the students work with the local Civil Defense Agency to promote the initiation of a Medical Self-Help Program* in the community for parents and adults.	

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* It is recommended that the *Medical Self-Help Program* be made available to all students at the Senior High level. The program is endorsed by the American Medical Association and all essential materials are available through the Office of Planning, Massachusetts Department of Public Health, 600 Washington Street, Boston, Massachusetts 02111.

APPENDIX

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Articles

The Instructor

Using the Overhead to Train Perception

Journal of School Health

The Requirements for Oral Hygiene
The Role of the Teacher in Dental Health Education

Mental Hygiene

Some Psychological Aspects of Dental Practice: A Study of the Individual's Response to the Care of His Teeth

Metropolitan Detroit Science Review

The Five Senses

Reader's Digest Association

The Great Fluoridation Scare (Reprint)
Your Family's Protection Against Tooth Decay

Science Digest

Light Sleepers More Active Than Long Sleepers

Scientific American

Early Concepts of the Senses and the Mind
Experiment in Perception
Movements of the Eye
Noise
Patterns of Dreaming
The Physiology of Exercise
The Skin
Sleep
The States of Sleep
Sunburn
The Synapse
Taste Receptors
What People Dream About

Sports Illustrated

The Soft American

Time

Flourides for Adults
Sleep and Emotions

Today's Health

How Color Affects Your Life
Learn to Relax
Let's Take the Din Out of Living
Sleep for Sale
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Pamphlets

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Exercise and Fitness
Movement Education for Children
Teaching Dental Health

American Bible Society

Braille Alphabet

American Cancer Society

Cancer Facts for Men
Cancer Facts for Women
I Have a Secret Cure for Cancer
Science Against Cancer
Teaching About Cancer
Youth Looks at Cancer

American Dental Association

Answers to Criticisms of Fluoridation
Between 13 and 18
Careers in Dentistry
Dental Health Facts for Teachers
Dental Health Teaching Outline
Dental Projects for High School Science Students
Diet and Dental Health
Fluoridation Facts
Fluoride Helps Prevent Tooth Decay
Home Care of the Mouth
How We Take Care of Our Teeth
I'm Going to the Dentist
Teaching Dental Health
The Teens and the Teeth
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You Can Prevent Tooth Decay
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Facts About Sexuality
Facts About Syphilis
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Dental Decay
Education: A Key to Good Dental Health
Fluoridation
A Guide to Reading on Fluoridation
Healthy Teeth

Hearing Loss: Hope Through Research
How to Protect Your Hearing
Physical Fitness

United States Department of Health, Education and Welfare, Children's Bureau

Day Care Services

United States Department of Health, Education and Welfare, Public Health Service

Air Pollution and Respiratory Disease
The Air Qualtity Act of 1967
Clean Air Act of 1970
Dental Prepayment
The Effects of Air Pollution
Environmental Health Problems
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The Federal Air Pollution Program
No Laughing Matter
Prepaid Dental Care
The Sources of Air Pollution and Their Control
A Strategy for a Livable Environment
Take Three Giant Steps to Clean Air

United States Department of Labor

Health Manpower Act of 1968

United States Government Printing Office

If Disaster Strikes

Winthrop Laboratories

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Emphysema and You
Hair Do's and Don'ts

Periodicals

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American Journal of Public Health

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Safe Living at School
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Eyes: Their Structure and Their Care
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Health Heroes: The Battle Against Disease
Healthy Feet
Healthy Lungs
Healthy Skin
Hear Better: Healthy Ears
Heart, Lungs, Circulation
The House Fly and Its Control
How Billy Keeps Clean
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The Human Body: Muscular System
Human Body: The Nervous System

The Human Body: Nutrition and Metabolism
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American Social Health Association, 1790 Broadway, New York, New York 10019

Associated Instructional Media Services, 253 Old Oaken Bucket Road, Scituate, Massachusetts 02066

Association Films, Inc., 512 Burlington Avenue, La Grange, Illinois 60525

Association Instructional Materials, 600 Madison Avenue, New York, New York 10022

Association Press, 291 Broadway, New York, New York 10007

The Athletic Institute, 805 Merchandise Mart, Chicago, Illinois 60654

A-V Explorations, 505 Delaware Avenue, Buffalo, New York 14202

Avis, 2408 W. Olive Avenue, Burbank, California 91506

Bailey-Film, Inc., 11559 Santa Monica Boulevard, Los Angeles, California 90025

Bell Telephone Company, Mountain Avenue, Murray Hill, New Jersey 07971

Bethlehem Steel Corporation, Bethlehem, Pennsylvania 18016

Boston Children's Hospital Medical Center, 300 Longwood Avenue, Boston, Massachusetts

02115

Bowmar Publishing Corp., 622 Rodier Drive, Glendale, California 91201

Stanley Bowmar Company, Inc., 4 Broadway, Valhalla, New York 10595

Bristol-Myers Company, Educational Service Department, 45 Rockefeller Plaza, New York, New York 10000

Cahill, Charles, and Associates, Inc., P.O. Box 3220, Hollywood, California 90028

Cambosco Scientific Company, Inc., 342 Western Avenue, Boston, Massachusetts 02135

Care, Inc., 660 First Avenue, New York, New York 10016

Churchill Films, 662 North Robertson Boulevard, Los Angeles, California 90069

Classroom Film Distributors, Inc., 5620 Hollywood Boulevard, Los Angeles, Caliornia 90028

Clearvue, Professional Building, Oak Brook, Illinois 60521

Colgate Palmolive, Education Department, 300 Park Avenue, New York, New York 10022

David Cook Company, 850 N. Grove Avenue, Elgin, Illinois 60120

Committee for Environmental Information, 438 N. Skenker Boulevard, St. Louis, Missouri 63130

Communico, Inc., 2141 Schultz Road, St. Louis, Missouri 63141

Contemporary Films, 267 W. 25th Street, New York, New York 10001

Coronet Films, 65 E. South Water Street, Coronet Building, Chicago, Illinois 60601

Coward-McCann, 200 Madison Avenue, New York, New York 10016

The George F. Cram Co., Inc., 301 S. LaSalle Street, Indianapolis, Indiana 46206

The Creative Learning Group, Media Engineering Corporation, 5 Boylston Street, Cambridge, Massachusetts 02138

Thomas Y. Crowell Company, 201 Park Avenue S., New York, New York 10003

Display Corporation of American, Education Products, Inc., 4865 Stenton Avenue, Philadelphia, Pennsylvania 19144

Sid Davis Productions, 1418 N. Highland Avenue, Hollywood, California 90028

Denoyer-Geppert, 5235 Ravenswood Avenue, Chicago, Illinois 60640

Doubleday & Company, Inc., 501 Franklin Avenue, Garden City, New York 11530

Ealing Corp., 2225 Massachusetts Avenue, Cambridge, Massachusetts 02140

Eastman Kodak Company, 343 State Street, Rochester, New York 14650

Educational Progress Corporation, 8538 East 41st Street, Tulsa, Oklahoma 74145

Educational Record Sales, 157 Chambers Street, New York, New York 10007

Educational Services, Inc., 108 Water Street, Watertown, Massachusetts 02172

Encyclopaedia Britannica Educational Corp., 425 N. Michigan Avenue, Chicago, Illinois

60611

Environment, 438 N. Skinker Boulevard, St. Louis, Missouri 63130

Epilepsy Society of Massachusetts, 222 Summer Street, Room 511, Boston, Massachusetts 02210

Equitable Life Assurance Society of the United States, Bureau of Public Health, 1285 Avenue of the Americas, New York, New York 10019

Eye Gate House, Inc., 146-01 Archer Avenue, Jamaica, New York 11435

Family Service Association of America, 44 East 23rd Street, New York, New York 10017

Stuart Finley, Inc., 3428 Mansfield Road, Falls Church, Virginia 22041

Florida Citrus Commission, Production Department, Lakeland, Florida 33802

W.H. Freeman and Company, 660 Market Street, San Francisco, California 94104

GAF Corporation, 140 West 51st Street, New York, New York 10020

General Learning Corporation, 3 E. 54th Street, New York, New York 10022

The Graphic Curriculum, P.O. Box 565, Lenox Hill Station, New York, New York 10021

Guidance Associates, 757 Third Avenue, New York, New York 10017

Harcourt Brace Jovanovich, Inc., 757 Third Avenue, New York, New York 10017

Health Career Film Service, 13 East 37th Street, New York, New York 10016

Health Education Service, P.O. Box 7283, Albany, New York 12224

Henk Newenhouse, Inc., 1825 Willow Road, Northfield, Illinois 60093

Indiana Health Careers, Inc., 2940 N. Pennsylvania Street, Indianapolis, Indiana 46205

Indiana University Audio-Visual Center, Indiana University, Bloomington, Indiana 47401

Instructo Corporation, Paoli, Pennsylvania 19301

The Instructor Publications, Inc., 190 Clark Road, Lowell, Massachusetts 01852

International Apple Association, 1302 18th Street N.W., Washington, D.C. 20036

International Film Bureau, 332 South Michigan Avenue, Chicago, Illinois 60604

The Jam Handy Organization, 2781 E. Grand Boulevard, Detroit, Michigan 48211

John Hancock Mutual Life Insurance Company, Health Education Service, 200 Berkeley Street, Boston, Massachusetts 02117

Johnson and Johnson, 501 George Street, New Brunswick, New Jersey 08903

Kimberly-Clark Corporation, Cellucotton Division, Educational Department, Neenak, Wisconsin 54947

King Screen Productions, 320 Aurora Avenue N., Seattle, Washington 98109

Lactona Products Division, 201 Tabor Road, Morris Plains, New Jersey 07950

Laidlaw Brothers, Thatcher and Madison Street, River Forest, Illinois 60305

Learning Corporation of America, 711 Fifth Avenue, New York, New York

Lyons and Carnahan, 407 E. 25th Street, Chicago, Illinois 60616

Massachusetts Citizens' Committee for Dental Health, 40 Griggs Terrace, Brookline, Massachusetts 02146

Massachusetts Council of Boy Scouts of America, 15 Green Street, Charlestown, Massachusetts 02129

Massachusetts Dental Society, Prudential Tower, Prudential Center, Boston, Massachusetts 02199

Massachusetts Department of Public Health, 600 Washington Street, Boston, Massachusetts 02111

The Massachusetts Petroleum Council, 15 Court Square, Boston, Massachusetts 02108

Massachusetts Pharmaceutical Association, 8 Beacon Street, Boston, Massachusetts 02108

Massachusetts Registry of Motor Vehicles, 100 Nashua Street, Boston, Massachusetts 02114

Massachusetts Society for the Prevention of Blindness, 375 Concord Avenue, Belmont, Massachusetts 02178

Massachusetts Tuberculosis and Respiratory Disease League (and Local Associations), 131 Clarendon Street, Boston, Massachusetts 02116

McGraw-Hill Book Company, 330 W. 42nd Street, New York, New York 10036

Metropolitan Life Insurance Company, School Health Bureau, Health & Welfare Division, 1 Madison Avenue, New York, New York 10010

Mobile Oil Corporation, 150 E. 42nd Street, New York, New York 10017

Modern Learning Aids, 1212 Avenue of the Americas, New York, New York 10036

Modern Talking Picture Service, 1212 Avenue of the Americas, New York, New York 10036

Muscular Dystrophy Association of America, Public Information Department, 1790 Broadway, New York, New York 10019

Museum of Science, Science Park, Boston, Massachusetts 02114

National Association for Mental Health, 10 Columbus Circle, New York, New York 10019

National Center for Atmospheric Research, Box 1470, Boulder, Colorado 80302

National Dairy Council, 111 North Canal Street, Chicago, Illinois 60606

National Fire Protection Association, Public Relations Department, 60 Batterymarch Street, Boston, Massachusetts 02110

National Foot Health Council, Inc., 321 Union Street, Rockland, Massachusetts 02370

National Foundations, March of Dimes, 800 Second Avenue, New York, New York 10017

New York League for the Hard of Hearing, 71 West 23rd Street, New York, New York

A.J. Nystrom Company, 3333 Elston Avenue, Chicago, Illinois 60618

Personal Products Company, Educational Department, Milltown, New Jersey 08850

Popular Science Audio-Visuals, Inc., 5235 Ravenswood Avenue, Chicago, Illinois 60640

Popular Science Publishing Company, Inc., 355 Lexington Avenue, New York, New York 10017

Price-Vowell Association, 3491 Cahwenga Boulevard, Hollywood, California 90028

Proctor and Gamble, Professional Services, P.O. Box 747, Cincinnati, Ohio 45201

Public Affairs Committee, Inc., 22 E. 38th Street, New York, New York 10016

Public Affairs Information Service, 11 West 40th Street, New York, New York 10018

Public Affairs Pamphlets, 381 Park Avenue South, New York, New York 10016

G.P. Putnam's Sons, 200 Madison Avneue, New York, New York 10016

Reader's Digest Association, Pleasantville, New York 10570

Registry of Medical Technologists, 710 South Wolcott Avenue, Chicago, Illinois 60612

Science Digest, 575 Lexington Avenue, New York, New York 10022

Scientific American, 415 Madison Avenue, New York, New York 10017

S-L Productions, 5126 Hartwick Street, Los Angeles, California 90041

Social Security Administration, Boston District Office, Park Square Building, Room 250, Boston, Massachusetts 02116

Society for Visual Education, Inc., 1326 Devon Avenue, Los Angeles, California 90024

Sonotone Corporation, 8 Winter Street, Boston, Massachusetts 02108

Stanton Films, 7934 Santa Monica Boulevard, Los Angeles, California 90046

Sterling Educational Films, P.O. Box 8497, Universal City, California 91608

Tampax, Inc., 161 East 42nd Street, New York, New York 10017

Tennessee Health Careers Program, 210 Reidhurst Avenue, Nashville, Tennessee 37203

3M Company, 3M Center, St. Paul, Minnesota 51101

Three Prong Television Productions, Inc., 1525 E. 53rd Street, Chicago, Illinois 60615

Time-Life Books, Time & Life Building, Rockefeller Center, New York, New York 10020

Today's Health, 535 N. Dearborn Street, Chicago, Illinois 60610

United States Department of Health, Education and Welfare, Food and Drug Administration, Boston Regional Office, 585 Commercial Street, Boston, Massachusetts 02109

United States Government Printing Office, Division of Public Documents, Washington, D. C. 21402

United World Films, Inc., 221 Park Avenue South, New York, New York 10003

Walt Disney Productions, 800 Sonora Avenue, Glendale, California 91209

Warner Chilcott Laboratories, Morris Plains, New Jersey 07950

The Welch Scientific Company, 7300 N. Linder Avenue, Skokie, Illinois 60076

Western Publishing Company, Inc., 850 Third Avenue, New York, New York 10022
Wilding Productions, 1345 W. Argyle Street, Chicago, Illinois 60640
Winthrop Laboratories, 90 Park Avenue, New York, New York 10016
Worcester Science Centre, 222 Harrington Way, Worcester, Massachusetts 01602
World Health Organization, 1501 New Hampshire Avenue, N.W., Washington, D.C. 20006
Young America Films, 34 East Putnam Avenue, Greenwich, Connecticut 06830

MINIMUM EDUCATIONAL REQUIREMENTS FOR ALLIED HEALTH OCCUPATIONS*

Elementary School

Food Service Worker
Home Health Aide
Housekeeping Aide

Some High School

Community Health Aide
Hospital Service Worker
Visiting Health Aide
Ward Attendant

High School Diploma

Credit Manager
Dental Laboratory Technician (3 or 4 years on-the-job training)
Homemaker-Home Health Aide
Laundry Manager
Orderly
Statistical Clerk
Ward Clerk

High School Plus On-the-Job or Other Special Training

Ambulance Attendant
Basal Metabolic Rate (B,M,R,) Equipment Technician
Day Care Aide
Dental Assistant
Dietary Aide
Electrocardiograph Technician
Electroencephalograph Technician
Electronics Technician
Executive Housekeeper
Food Service Supervisor
Health Care Assistant
Hospital Engineer (may also require baccalaureate)
Inhalation Therapist (9 months)
Laboratory Technician
Medical Assistant
Medical Receptionist
** Medical Record Technician (9 months)

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*Compiled by the Woman's Auxiliary of the American Medical Association.
For further information about allied health occupations, contact the Woman's Auxiliary to the Massachusetts Medical Society.

** Acceptable schools for these occupations are accredited by the AMA..

Medical Secretary (approximately 9 months)
Nurse Aide
Office Clerk
Optician (up to four years on-the-job training)
Orderly
Orthopedic Technician
Pharmacy Assistant
Physical Therapy Aide
Prosthetist
Psychiatric Aide
Recreation Therapy Aide

High School Plus a Year or More of Special Training

**Certified Laboratory Assistant
Corrective Therapy Aide
Director of Volunteer Services
Electronics Technician
Histologic Technician
**Inhalation Therapy Technician (18 month course)
Laundry Manager (up to two years)
Medical Display Artist
Medical Draftsman
Medical Illustrator
Nurse - Licensed Practical Nurse, L.P.N. (Licensed Vocational Nurse, L.V.N. in California & Texas)
Occupational Therapy Assistant
Operating Room Assistant
Optical Laboratory Technician
Orthoptic Technician
Orthotist (up to four years)

Two Years of College (may be Junior Community College offering an Associate Degree)

Accountant
Biomedical Engineering Technician
Computer Operator
Dental Hygienist
Director of Hospital Volunteer Services
Director of Volunteer Services
Dispensing Optician
Display Artist
Draftsman
Environmental Health Technician
Food and Drug Analyst
Food and Drug Inspector
Food Service Supervisor
Inhalation Therapy Technician
Medical Emergency Technician
Medical Illustrator

Medical Laboratory Assistant
Medical Secretary
Occupational Therapy Assistant
Opthalmic Dispenser
Orothopedic Assistant
Physical Therapy Assistant
Physician's Assistant
Prosthetist
Radioisotope Technician
Radiologic Technologist
Surgery Technician
Ward Manager
**X-ray Technologist (2 years in college or hospital)

Three Years of College or Other Special Training

Admitting Officer
Computer Programer
**Cytotechnologist (2 years of college plus a year in a School of Cytotechnology)
Medical Engineering Technician
**Medical Technologist (3 years college plus a year of clinical training)
Nuclear Medical Technologist (baccalaureate and even master degree sometimes required)
Orthoptist (minimum 2 years college - 1 year training)

Three Years of College Work Plus Clinical Training

Educational Therapist
Field Representative
Health Information Specialist
Homemaking Rehabilitation Consultant
Manual Arts Therapist
Medical Illustrator
**Medical Record Librarian (3 years of college plus 1 year of training in a hospital)
Music Therapist

Four Years of College (Baccalaureate Degree)

Administrative Assistant
Anatomist
Audiologist
Bacteriologist
Biochemist
Biologist
Biomedical Engineer
Biophysicist
Biostatistician
Chemist
Controller
Corrective Therapist

Dietitian
Educational Therapist
Embryologist
Entomologist
Field Representative
Food and Drug Inspector and Analyst
Food Technologist
Health Economist
Health Educator
Health Information Specialist
Homemaking Rehabilitation Consultant
Hospital Engineer
Industrial Hygienist (graduate work usually added)
Local Executive
Manual Arts Therapist
** Medical Record Librarian
** Medical Technologist
Microbiologist
Music Therapist
Nuclear Medical Technologist
Nurse (registered nurse)
** Occupational Therapist
Personnel Director
** Physical Therapist
Physiologist
Program Analyst
Program Representative
Public Health Statistician
Public Relations Director
Radiological Health Specialist
Recreation Therapist
Safety Engineer
Sanitarian
Sanitary Engineer (may require graduate work)
School Health Educator
Science Writer
Sociologist (usually continue graduate work)
Speech Pathologist
Technical Writer

Five Years of Higher Education (Baccalaureate Degree with a Year of Additional Work)

Athletic Trainer
Blood Bank Technologist
Dietitian
Hospital Librarian
Medical Engineer
Medical Librarian
Nutritionist

Optometrist (2 years of college - 4 years optometry school)
Pharmacist (High school plus 5 years in a College of Pharmacy)
Psychometrist
Public Health Administrator
Public Health Analyst
Public Health Educator (Master of Public Health degree--MPH)
Radiologic Engineer
Rehabilitation Counselor (5½ years college)
Speech and Hearing Therapist
Speech-Pathologist and Audiologist (sometimes more graduate work)
Vocational Rehabilitation Counselor

Six Years of Higher Education (Baccalaureate Degree with two Years of Graduate Work)

Environmental Health Engineer
Health Officer
Hospital Administrator
Medical Social Worker
Podiatrist
Psychiatric Social Worker
Veterinarian (likely to continue graduate work)

MASSACHUSETTS DEPARTMENT OF EDUCATION

Health Education Curriculum Guide (Part 2)
Evaluation Sheet

General Comments

Suggestions for Additions or Deletions

Specific Comments (Please include page references where applicable.)

Return to:
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Department of Education
182 Tremont Street
Boston, Mass. 02111

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Title ______________________________

School ______________________________